It's Our Future: A Choice City

CITY OF VIRGINIA BEACH
COMPREHENSIVE PLAN

Policy Document

Adopted May 17, 2016
Amended January 17, 2017
Amended June 20, 2017
Amended December 12, 2017
Amended November 20, 2018
Amended June 2, 2020
Amended June 16, 2020
Amended February 16, 2021

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- Reference Handbook
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ACKNOWLEDGEMENTS

The Planning Commission and the Department of Planning & Community Development staff gratefully acknowledge the participation of our citizens and the following contributors to this project. This project would not have been as informed and successful without their assistance and support.

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Citizens of Virginia Beach

City Council-Appointed Boards, Commissions, and Committees:
- Agriculture Advisory Commission
- Bayfront Advisory Committee
- Bikeways and Trails Advisory Committee
- Transition Area-Interfacility Traffic Area (ITA) Citizens Advisory Committee
- Virginia Beach Beautification Commission
- The Mayor's Commission on Aging

Central Business District Association

Farming Community Representatives:
- Steve Barnes
- John Cromwell
- Mike Cullipher
- Donald Horsley
- Bobby Vaughan
- Robert White
- Creeds Ruritan Club

Seatack Communities Civic League

Shore Drive Corridor Coalition

Virginia Beach Vision – Comprehensive Plan Task Force
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- Comptroller's Office
- Convention & Visitors Bureau
- Department of Agriculture
- Department of Communications/Media Services
- Department of Communications/Information Technology
- Department of Cultural Affairs
- Department of Emergency Communications/311
- Department of Finance
- Department of Fire/EMS
- Department of Health
- Department of Housing & Neighborhood Preservation
- Department of Human Services
- Department of Libraries
- Department of Management Services
- Department of Museums
- Department of Parks & Recreation
- Department of Planning & Community Development
- Department of Police
- Department of Public Utilities
- Department of Public Works
- Strategic Growth Areas Office
- Virginia Beach City Public Schools

EXECUTIVE SUMMARY

INTRODUCTION

The City of Virginia Beach turned 50 in 2013. "Live the Life" was the tagline and there was much to be celebrated by citizens and city leaders regarding our young city's many accomplishments up to that point in time. The then-recent list of accolades was indeed impressive and varied:

2011

- ✓ Ranked as the "9th Top Digital City in the U.S." (Center for Digital Government, April 2011)
- ✓ Named "5th Best City for Working Mothers" (*Forbes* Magazine, April 2011)
- ✓ List of "Family Friendly Cities" (*Ebony Magazine*, October 2011)
- ✓ "One of the Nation's 100 Best Cities for Young People" (America's Promise Alliance, December 2011)
- ✓ "Top 10 Best Walking Cities" (*Prevention Magazine*, December 2011)

2012

- ✓ "One of America's 50 Best Cities" (*Bloomberg Businessweek,* January 2012)
- ✓ "Best Run City in America" (*24/7 Wall Street Journal*, January 2012)
- ✓ "#2 Best City in America for Raising a Family" (*24/7 Wall Street Journal*, January 2012)
- ✓ "Seventh Healthiest City in America for Women" (*Women's Health* Magazine, January 2012)
- ✓ "Best 'Green' School Division Nationwide" (U.S. Green Building Council)
- ✓ Louisville Award for Innovation in Government for Municipal Energy Resources Management (Government Finance Officers Association)

2013

- ✓ William D. Sessoms, Jr. awarded "Policymaker/Elected Official of the Year" (Association of Defense Communities)
- ✓ "6th Happiest City in the Country in Which to Work" (Forbes.com declared, January 2013)
- ✓ Virginia Beach's Parks System ranked "8th in the Nation" (Trust for Public Land, June 2013)
- ✓ "2nd Most Business-Friendly City in America" (CNNMoney.com Report, June 2013)
- ✓ "Fittest City in America" (Facebook's Fittest Cities, July 2013)
- ✓ "One of the 10 Best Cities for Early Retirement" (*Kiplinger,* November 2013)

2014

- ✓ "A Top 10 Beach Town for Retirees" (CBS News, May 2014)
- ✓ "One of America's Top 10 Destinations for July 4th Celebrations" (Priceline.com, June 2014)
- ✓ "A Millennial Boomtown" (*Forbes*, August 2014)
- ✓ "One of America's Best Cities for Global Trade" (*Global Trade Magazine*, October 2014)
- ✓ "One of 2014's Most Searched Destinations on Yahoo!"(Yahoo!, December 2014)

- ✓ 2014 Gold Excellence Award (Economic Development Council for Real Estate Redevelopment and Reuse)

2015

- ✓ "2nd Hardest-Working City in America" (Wallet Hub, March 2015)
- ✓ "One of the 10 Most Beautiful Cities in the USA" (The Culture Trip, March 2015)
- ✓ "One of the Best 10 U.S. Beaches for Families" (Family Vacation Critic, April 2015)
- ✓ "One of the 10 Best Cities for Millennial College Students" (*USA Today*, April 2015)
- ✓ "One of America's Most Literate Cities" (USA Today, April 2015)
- ✓ "The Most Affordable City in America in Which to Start a Family" (Wise Bread, May 2015)
- ✓ "Best Large City for Veterans to Live" (*USA Today*, June 2015)
- ✓ "One of America's Best Boardwalks" (Fox News, July 2015)
- ✓ "4th Best City for First-Time Homebuyers" (Vox Business & Finance, July 2015)
- ✓ "A+ in Starting a Small Business" (Thumbtack.com, August 2015)
- ✓ "One of the 10 Best Cities to Live In" (WalletHub, August 2015)

These labels acknowledge what we already know about our city—that Virginia Beach is a great city that offers excellent choices for a variety of ages and lifestyles. We truly embrace our city motto, "*A Community for a Lifetime.*" We are, as the labels show, a "City of Choice" or, a choice city. Be it opportunities for young people, those just starting out as homebuyers and families, those who relish the outdoors and open spaces, small businesses and global companies, workers, the defense community and its veterans, retirees, and all who wish to recharge their souls within our beautiful natural landscape by the sea— we desire to be a place that people raise a family in, work in, and retire to.

To date, our accomplishments as a city are the result of taking the risk of merger between the City of Virginia Beach and Princess Anne County in 1963 and hard work and diligence ever since by visionary leadership and a committed citizenry. These accomplishments are also the result of a city governance model that has relied on listening to our citizens and businesses, continuous long-range planning, strategic planning, and capital investment in order to be responsive to our changing conditions and needs. We do this with a steadfast commitment to growing in a sustainable and resilient manner—fiscally, socially, and environmentally. Our citizens are engaged, talented, fun-loving, creative, innovative, and passionate. They, along with our business community, hold the City's leaders and public servants accountable to deliver the best services possible. *Living the life is what's expected here.*

A Community for a Lifetime

A CHOICE CITY

The strategic choices Virginia Beach has made over the years have set our course for the future. They also define who we are to the world. Clearly, the response has come back to us that Virginia Beach is a beach community in Coastal Virginia that offers many choices and is a choice city.

Choices have been made to grow in a safe, suburban pattern in the northern part of the city, yet retain our pristine and productive rural landscape and heritage in the southern part of the city. We have prided ourselves with building and nurturing stable suburban neighborhoods, commercial centers, schools, and community facilities. Our rural community has remained vibrant and protected for future generations to farm through effective land conservation programs, such as the Agricultural Reserve Program and historic preservation or open space easements. Our people highly value our natural resources and rural area and demand sound stewardship of them.

THE GREEN LINE

We choose to maintain the "Green Line" as the linchpin of our growth management strategy. The preservation of the Green Line is reinforced by a variety of other land use policies and programs in the City's Planning Areas. It has been 35 years since the Green Line was first introduced in the *1979 Comprehensive Plan*. Although the City has grown and matured considerably during that time, the Green Line is still critical to our ability to properly shape our future in a sustainable manner. The SGAs and Special Economic Growth Areas (SEGAs) designated in the *2003 and 2009 Comprehensive Plans*, respectively, address the need to keep the Green Line in place; yet, still provide for our city's future population growth, economic growth, and tax base growth. Below the Green Line today is

found both public and private development in larger-lot development patterns, with an emphasis on quality public open space and recreation, connected by a trails network and greenways. The land use and urban infrastructure policies associated with the Green Line remain unchanged; however, at this juncture, we have a need to re-evaluate the capacity of the area south of it to accommodate development as new revelations about changing environmental conditions and how we can develop land sustainably have come to light.

PLANNING AREAS

How we want our land to be used in the future is described in **Chapter 1, Planning Areas**. Virginia Beach's Planning Areas and planned land use pattern offers many lifestyle choices. S**ection 1.1** presents the City's **2040 Planned Land Use Map.**

URBAN AREAS

Over time, due to the finite nature of land and its growing scarcity, coupled with a desire to effectively and efficiently manage growth and capital resources, yet grow in a more sustainable manner, choices were made to offer a third lifestyle choice to our citizens, businesses, visitors, and potential future residents—an urban form. Future urban form and development patterns are being directed to 8 strategic locations in our city, where existing infrastructure is located and has the capacity to absorb additional growth through infill development and both public capital investment and private redevelopment in the future. **Section 1.2 – Urban Areas** presents the guiding principles for and visions for the 8 Strategic Growth Areas (SGAs) -- at the Resort, Burton Station, Pembroke, Newtown, Rosemont, Lynnhaven, Hilltop, and Centerville. Collectively, the SGAs represent our city's "Urban Areas" and constitute only 2% of our gross land area.

All of the SGAs were master planned over a 6-year period between 2007 and 2013. Six of these areas are also where key transportation corridors are located that have the potential to become multi-modal in nature by introducing additional transportation choices. The SGA visions are long-range into the future, as it will take many years for our land development patterns to transform in this way, and for capital improvements and private investment choices to support them. Indeed, the SGAs have already begun to transform as the economy has rebounded since 2010, with the Burton Station, Newtown, Pembroke, and Resort SGAs experiencing most of the changes to date.

The Burton Station SGA, comprised of the historic Burton Station community and the Northampton Boulevard Corridor, have begun to realize long-neglected capital and private investment that is both improving the quality of life for residents and creating more attractive corridor aesthetics. Recent improvements to Wesleyan Drive and its intersection with Northampton Boulevard have eased congestion on a heavily traveled arterial serving two academic institutions.

Since the *Northampton Boulevard Corridor Strategic Growth Area Implementation Plan* was adopted in 2009, a few significant changing circumstances have affected some central components of the plan. First, the buffer area/relocated golf course planned around Burton Station Village will no longer be a golf course. Norfolk has decided to close the Lake Wright golf course as it was too expensive to maintain. Second, the 332,000 square foot phase I of the Norfolk Premium Outlets opened in 2017. Third, the Norfolk Airport Authority secured a rezoning approval from City Council for 36 acres of land from residential to industrial. Finally, approximately a dozen single family residences remain on Burton Station Road and due to truncation of Premium Outlets Boulevard by Norfolk, Burton Station needs to continue to connect to Miller Store Road. Based on

these changed circumstances, the Northampton Boulevard Strategic Growth Area Implementation Plan (now called Burton Station Plan update) was approved in July, 2018.

Regent University Quad and University Village Concept - Centerville SGA Master Plan

The Centerville SGA is home to a rapidly growing institution of higher learning—Regent University— which has grown to become a 4-year college and a graduate school, and has an award-winning School of Law. Supported by corporate office development, the university's master plan was shared with city planners to create the concept of a future university village that will enable the university to grow and address its growing student housing needs. It would also allow surrounding residents to take advantage of university offerings in employment, dining, services, and small shops. This SGA, due to its lack of environmental and other constraints, affords an opportunity for economic development adjacent to the Interstate and a home to future Class A office space of a design that continues the architectural themes found on the campus. The municipal landfill at the western edge of the SGA will continue to operate into the foreseeable future, but the SGA plan envisions a new district park being designed there once it is closed, similar to the City's beloved and well-used Mt. Trashmore Park.

The Newtown SGA sits at the eastern terminus of the first segment of the region's light rail transit system, The Tide, with service only in Norfolk at present. In a landmark decision in 2015, City Council voted to continue developing plans to extend The Tide to Town Center through the Newtown SGA. Newtown's proximity to Town Center has the potential to echo the Town Center's vibrancy but at an appropriate scale and density adjacent to established residential neighborhoods. Historic Kempsville sits to the south of Newtown and is transforming into a mixed-use Suburban Focus Area that seeks to have a character that is reminiscent of Colonial Williamsburg, offering small shops and new housing choices. Intensive road and public space improvements have saddled its main intersection at Witchduck and Princess Anne Roads for a number of years, but private investment has begun as a result of these public investments.

"YNOT Wednesdays" Summer Concert Series - Sandler Center Plaza, Pembroke SGA

The Pembroke SGA has become the City's "Town Center" providing a much desired sense of place—and public gathering place-- as a Downtown. In just the past 15 years, a skyline has emerged that offers an exciting new residential, employment, shopping, and entertainment address. The City's oldest shopping mall, Pembroke Mall, has received a facelift and re-orientation that is more pedestrian friendly. Formally dominated by vehicular travel lanes that made it unsafe for pedestrians to cross, the Virginia Beach Boulevard corridor has been somewhat tamed to enable pedestrians to travel more safely between the two major destinations within the Core Area—Pembroke Mall and Town Center. The arts scene thrives at the Sandler Center, showcasing with both celebrity and local talent year-round. An increasing number of outdoor festivals and events offer free entertainment in every season.

Rosemont SGA, which lies immediately east of Pembroke SGA and the Town Center is planned to be a transit-oriented residential community for those who desire to live near Town Center but not in it. Transit extension is necessary for this vision to be fully realized, but commercial property owners already see that potential. They have begun to make improvements to attract new shoppers and enhance the shopping experience for existing customers.

The Lynnhaven and Hilltop SGAs have inherent redevelopment challenges as future growth areas, in that they are constrained by the presence of waterways, floodplains, wetlands, and aircraft high noise zones due to their proximity or adjacency to NAS Oceana. These SGAs have been carefully planned with our military facilities stakeholders. Planned land uses in these SGAs are compatible, yet also transit-ready should a decision be made in the future to extend public fixed-guideway transit east to the Oceanfront.

The Lynnhaven SGA has the potential to serve the city as an innovative industrial and service industry zone, while maintaining existing affordable housing for first-time homebuyers and seniors in the established neighborhoods of Eureka Park and Pinewood Gardens. Rediscovering the waterways that meander the Lynnhaven SGA by orienting our buildings toward them and creating more visual and public water access points along an extensive public trail system is an underlying design principle.

The long-range vision for Hilltop SGA, which is already a regional retail destination that features locally-owned restaurants, a plethora of grocery stores, and a variety of shops, builds on the area's strengths, yet introduces more greenspace. Incorporating greenspace through redevelopment opportunities can help address the SGA's stormwater management needs. In turn, this can create a healthier environment and visitor experience that welcomes more people out of their cars and outdoors as they move from place to place within the SGA. Industrial and commercial uses compatible with being in a military aircraft high noise zone have been relocated into this SGA at the southernmost end through the City's successful "YesOceana!" Program. The historic neighborhood of Oceana Gardens, which has a concentration of early 20th Century "Sears Kit Homes," is evolving with a new residential lot and density pattern that is more compatible with being located in a military aircraft Accident Potential Zone and high noise zone, while still trying to retain its character and charm.

ViBe Creative District "First Fridays" Art

The Resort Area SGA has received much capital investment in streetscape and utility improvements, including Rudee Walk, Pacific Avenue, and a new public parking structure on 25th Street. An innovative, flexible Form-Based Code is enabling new private development that provides a variety of housing types and a greater range of year-round shopping and entertainment for both residents and visitors, alike. An arts community has emerged in the Resort's ViBe Creative District and, as a result, more opportunities and choices are enabled in creative expression.

Now that master planning of the Strategic Growth Areas is complete, our focus has shifted to plan implementation and resourcing. In large measure, it

necessitates refreshing our zoning and development regulations and design guidelines to enable the visions set forth in each plan. In addition to retrofitting public infrastructure to support higher density development and replacing aging infrastructure, improvements to transportation, traffic management, stormwater management, and streetscapes are needed. So is creating new public and green spaces. Initial public investment to accomplish some of these things has been instrumental in catalyzing private investment. It is a proven recipe for success based on the numbers we're seeing for return on investment. However, we cannot provide public resources for all of the SGAs simultaneously and at the same levels of support. Instead, we must strategically implement each plan, such that the energy from one fuels the startup of the next. This will foster a synergistic relationship between all of them.

There are also symbiotic relationships between the SGAs and the rest of the city. Implementing the SGA plans allows us to maintain the current pattern of development and density in the adjacent lower-density, safe suburban neighborhoods that our city is known for. Implementing the SGA plans also allows us to preserve our Rural Area and enable the Princess Anne Commons and Transition Area to be a true buffer between the Suburban and Rural Areas. All of the City's "Planning Areas," as described in Chapter 1, are intended to be mutually supportive. Becoming successful in the SGAs means becoming successful at achieving our land use goals in all other areas of the city.

SUBURBAN AREAS

Virginia Beach suburban neighborhood form

We choose to continue to preserve the suburban lifestyle for those who seek it as the primary lifestyle choice in Virginia Beach. Safe and healthy suburban neighborhoods and world-class public schools are what our City is known for and why people move here to raise their families. The Comprehensive Plan's **Section 1.3 - Suburban Area** sets for land use policies that seek balance in the appropriate mix of residential neighborhoods within our Suburban Area communities in order to find compatibility in density and design. Striking such a balance can often be a divisive decision, as less and less land has become available for large-scale new neighborhoods. Infill development on smaller, remaining parcels of land has become the norm. Our Suburban Area neighborhoods are also aging. Virginia Beach has prided itself in the stability of its housing stock and neighborhoods over the years. Neighborhood-serving retail centers are experiencing a range of conditions, from thriving to obsolete to transforming, and it is important that reinvestment and new investment in both our housing stock and commercial centers be an ongoing pursuit to maintain the stability of our Suburban Area.

Careful consideration must be paid to the extent to which our market can support additional retail uses, in addition to where they should be strategically located and of what type and design to best support planned growth areas and reflect local character. Adaptive reuse and reinvestment in

neighborhood commercial centers are becoming a priority to ensure the continued viability of our Suburban lifestyle. Our challenge is to continue to allocate resources to code enforcement and home rehabilitation programs that have helped maintain strong neighborhoods, especially in light of historical reliance on federal and state housing assistance programs no longer being our current reality.

The Virginia Beach Sportplex, located in Princess Anne Commons, hosts many sporting events.

PRINCESS ANNE COMMONS & TRANSITION AREA

Section 1.4 - Princess Anne Commons & Transition Area, describe two key Planning Areas in Virginia Beach that are situated below the Green Line and north of the Rural Area. Princess Anne Commons, also referred to as Princess Anne Commons Strategic Economic Growth Area (SEGA), has evolved as a choice new destination for academic and medical institutions, sports and entertainment venues. Our planning for this area has been strategic because of its location under a military aircraft overflight area. Our economic development strategies have cultivated a strong alliance between these three industries to create a thriving community. Of recent note is our new target sector in biomedical research and development. Planning and resourcing public infrastructure to support continued strategic economic development in Princess Anne Commons is a high priority. Using a balanced approach between hard infrastructure and softer green infrastructure, we choose to continue to be able to meet a variety of desired stewardship, as well as federal and state-mandated environmental resource quality outcomes, including stormwater management and wetlands protection.

The Transition Area remains the penultimate buffer between the more densely populated and intensive land uses in the northern part of the city and the City's Rural Area to the south of Indian River Road. This area offers a choice for those who want to get away from the more densely-populated areas and into more open spaces, yet remain close to the conveniences of the Suburban Area. There is intended to be a noticeable difference here-- a transition-- as one travels from north to south through it and into the Rural Area.

Stormwater management features designed as open space amenities and an interconnected multiple-use public trail system are essential residential design elements in the Transition Area.

Open space is the primary consideration in site design, with a goal of achieving 50% cumulative open space at ultimate buildout. Context sensitivity is desired for building design and materials. Ideal uses are neighborhood-serving in both type and scale, not regional retail destinations and commerce centers as found in the Suburban Area. A vast network of public open space and multi-purpose trails is planned, and in part, is already built throughout the Transition

Area, enabling access to public recreation areas and individual mobility without reliance on the automobile.

Despite the designation and planning of the Strategic Growth Areas, development pressure in the Transition Area continues. This is in part due to the fact that it will be many years before the Strategic Growth Areas transform into their intended new pattern of more dense development. The Transition Area's low elevation and location at the headwaters of the Back Bay and North Landing River watersheds create a complex development landscape, however. A high groundwater table, documented sea level rise and recurrent flooding from wind-driven tides make stormwater management very challenging. We have come to realize that development must be treated differently here and that it may not be as developable as originally envisioned in previous Comprehensive Plans. Techniques for managing stormwater and other environmental quality goals that have worked well in other parts of the City have been found not to work as well in this area. As a result, new land use and development policies, design techniques, and regulations must be considered.

Multi-generational families farming in Virginia Beach.

RURAL AREA

The Rural Area and the rural way of life that has been present here for generations is described in **Section 1.5 - Rural Area.** The Rural Area offers yet another lifestyle choice for our residents. It is home to our vibrant agricultural industry—the third major element of our predominantly three-legged economy of tourism, the military, and agriculture. It is also a growing segment of our tourism industry.

The economic impact of the Rural Area is not limited to Virginia Beach, however; it is also a heavy user of the Port of Virginia, bringing our agricultural bounty to the world. It's big business for Virginia Beach. Preservation of our prime agricultural lands with long-established public utilities urban service boundaries and a successful Agricultural Reserve Program (ARP) has been effective. Although participation in the ARP has waned from its initial levels, reflecting an amassing of enrolled properties and retiring of stale residentially-zoned land, it remains a valuable and important growth management tool.

MILITARY INSTALLATIONS AND SUPPORT

Decades ago, our federal government chose to make Hampton Roads and Virginia Beach, in particular, a large home for its military commands and support services. The importance of this mission and federal resourcing of the various installations in Virginia Beach has only grown; Joint Expeditionary Base Little Creek-Ft. Story is now the City's largest public employer. Virginia Beach offers a training environment unparalleled elsewhere along the East Coast, enabling military personnel to train locally and remain with their families prior to deployment. Virginia Beach appreciates and chooses to support the military presence by ensuring that our land use policies are aligned with the missions of the various commands. This commitment and the various land use

policies and cooperative land use review tools we use to achieve it are described in **Section 1.6 – Military Installations & Support.**

Learning from the past, we have reduced incompatible land use encroachment through partnership efforts between the City, the Commonwealth of Virginia, and the U.S. Navy such that we have now become a model defense community. Mutual cooperation on "beyond the fence line" issues have become institutionalized on a daily basis through memoranda of understanding, routine communication, and collaborative planning between city planners and their federal planning counterparts. The choices we have made in recent years have better positioned us, along with our state and military partners, to be a more resilient community, region, and state, should there be additional recommendations from Base Realignment and Closure Commissions in the future.

The U.S. Navy's Blue Angels in formation over Boardwalk during Neptune Festival.

TRANSPORTATION

The majority of our citizens have said they support pursuing additional transportation choices. Lifestyle choices for living, working, playing, and in-buying preferences are changing as the City's demographics shift to reflect a larger majority of Millennials (those born just prior to the Year 2000) and Baby Boomers (those born immediately after World War II). The Millennial generation is on track to outpace the number of Baby Boomers for the foreseeable duration. The mobility needs and choices of these two generations at opposite ends of the spectrum are strikingly similar in that they prefer greater mobility that doesn't require an automobile. As a choice city for both young professionals and retirees, our city is changing in response to this.

Example of "Complete Streets" safe intersection design for a variety of users

The *2009 Comprehensive Plan* introduced the concept of multi-modality— offering choices in transportation modes including vehicular, walking, biking, and mass transit—and presented a Master Transportation Plan inclusive of all of these modes. The desire to establish a Complete Streets Policy, or street design that is friendly to all users, was also a concept planted in the *2009 Comprehensive Plan*. **Section 2.1 - Master Transportation Plan**, presents the City's multi-modal transportation plan and is a state-mandated element of the local comprehensive plan.

Key transportation planning decisions that have affected not only our city, but the region as a whole, have been made since then. These include the opening of a starter light rail transit line in Norfolk and re-introduction of passenger rail service to Southside Hampton Roads in Norfolk. Planning for high-speed rail continues to be a focus at the state level through the Virginia Department of Rail and Public Transportation. A *Complete Streets Administrative Directive* was established in Virginia Beach through public involvement that mandates consideration of all users in all new street design and retrofit projects to the greatest extent practicable. Greater community connectivity, or the ability to move from place to place with ease and not necessarily in an automobile, is something that our citizens have also said is desirable for our city. The 2015 General Assembly asked localities to consider the needs of our most vulnerable citizens— our seniors and disabled persons—in our transportation and land use planning. Often being transit-dependent, it is vital they are enabled to be valued and active members of our community for a lifetime.

ENVIRONMENTAL STEWARDSHIP

The North Landing River system is part of the City's "Green Sea."

In addition to transportation, Virginia Beach citizens place the highest value on stewardship of our greatest asset—our natural landscape, with its extensive waterways and shorelines. Sixty-percent of Virginia Beach residents today were born here. They have chosen to remain, in part, because of our City's natural beauty. We are a tourist economy for the same reason. Businesses choose to locate here for the coastal lifestyle that is offered for their employees to live in, work, and play. An economic development spirit that celebrates our natural environment and is a sound steward of it is being cultivated and nurtured by our new *A Community Plan for a Sustainable Future*, adopted by City Council in 2013. This new plan seeks a triple bottom line of fiscal, social and environmental sustainability in all of our decisions.

New comprehensive planning legislation passed by the General Assembly in 2015 requires localities to plan for sea level rise and recurrent flooding. This topic is also heavy on the minds of our citizens, who have been experiencing repeated nuisance or more severe flooding events. Even before this state mandate, Virginia Beach had chosen to begin addressing these issues primarily through floodplain regulations, beach nourishment, and stormwater system retrofit projects. We realize now that, as new technology emerges to gather additional data that allows us to analyze our current and projected conditions, it will take something more extensive than that. We must add a greater array of tools to our toolkit that covers the spectrum of response measures, inclusive of mitigation, adaptation, and where necessary, retreat. We choose to be a resilient city. We can also choose to be a model for environmental stewardship and make reinvention a defining characteristic.

Section 2.2 - Environmental Stewardship Framework describes how we intend to address our challenges and be resilient.

HOUSING & NEIGHBORHOODS

People have chosen to make Virginia Beach their home for a variety of reasons. By the numbers and accolades, many find it an affordable and safe place to raise a family or as a retirement destination. Our neighborhoods are strong. **Section 2.3 - Housing & Neighborhoods**, presents our plan for maintaining the best things our housing and neighborhood choices have to offer and improving them over time, as needed. Home construction has slowed considerably since 2000, due to the combined effects of market oversaturation, finite land, aggressive growth management policies, and a period of severe economic recession in more recent years. Our demographics are diversifying with the large presence of Baby Boomers and Millennials, and the growing presence of minority populations. Their housing preferences, along with the period of economic recession, have resulted in a surge in new multi-family housing (apartments and townhomes). This type of construction has recently outpaced the more traditional single family-residential home construction in our Urban and Suburban Areas for the first time in the City's history. On the other hand, and from another perspective on the numbers, housing that is affordable to the largest segment of our population—our working residents and our younger generations-- is becoming scarce or has become unattainable in large measure.

Families enjoying one of many neighborhood and regional parks.

According to the most recent five-year forecast, both residential and commercial real estate assessments are expected to grow slowly at 2.5% each year over the forecasted period. Our housing market has necessarily hit the proverbial "reset" button. These new realities call on us to make concerted choices in order to continue to have healthy neighborhoods and be a choice city for a lifetime.

ECONOMIC VITALITY

Section 2.4 - Economic Vitality presents the City's land use goals and policies for ensuring that our city thrives economically and sustainably into the future. After many years of prosperity, we now find ourselves emerging from what has been an uncertain and volatile economic environment. The regional economy was affected by a significant decline in the housing market – the city's primary source of revenue. Defense spending, federal and state aid and consumer spending are not as strong as we have experienced prior to 2008. Future growth will depend on the city's ability to focus on the greater diversification of its economy, such as a focus on the biomedical and healthcare fields while growing and retaining our existing tourism industry as well as hallmark employers and our base of small businesses.

Virginia Beach has an emerging bio-medical research industry.

We have made strategic choices to enhance and diversify our economic vitality such that Virginia Beach can be a place where all citizens and businesses can prosper in 2040. We are able to create our own future because we are less dependent than ever before on the state and federal governments. The economy is again vibrant, growing, and more sustainable. We attract, retain, and grow high-caliber companies offering good salaries to employ our young adults and attract creative youth from other markets. This talented workforce lives and thrives in our city. There are rich opportunities for people of all ages to participate in our vitality. New and existing businesses benefit from a well-trained, diverse, and available workforce, even as those businesses' needs continually change. We have realized more than ever, the value of our small businesses and have become a leader in the new business growth and development of minority-owned firms.

We maximize our investment in infrastructure by developing our land so that it preserves our quality of life and physical environment and serves the needs of generations to come. The future growth or "regrowth" strategy underpinning the Strategic Growth Areas is where this will manifest the most in the future. Development is more sensitive to the environment, enabling us to attract more sustainable businesses. This sensitivity is valued highly by our citizens, the business community, and visitors. As an early leader in strategic partnerships, Science, Technology, Engineering, and Mathematics (STEM), and entrepreneurship innovation opportunities between Virginia Beach City Public Schools, Economic Development, and our institutions of higher education, Virginia Beach is yielding young people or those just starting their careers that are choosing to remain here and contribute productively to our community. They are the new generation of our workforce and they work differently.

Our ability to retain these bright minds is due, in part, to the high quality of life we continue to enjoy. These highly qualified STEM workers have, in return, served us well and given us the potential to become a national and international hub for the biomedical and healthcare industry.

We also have a unique workforce development and transitioning opportunity with veterans, who are exiting service and choosing to remain here, by offering them training to adapt their unique skill sets to the civilian workforce. And, as primarily defines our city, we will continue to retain and grow our existing tourism industry, as well as hallmark employers and our wealth of small businesses.

Workforce development education opportunities thrive at Tidewater Community College's Virginia Beach campus in Princess Anne Commons and in Virginia Beach City Public Schools.

PLAN IMPLEMENTATION

Chapter 3 - Plan Implementation describes our collective responsibility to monitor and report on our progress with implementing this Comprehensive Plan. It offers a variety of tools for doing so and to accomplish state planning mandates. A quick reference summary table of all Agenda for Future Action Recommendations is also included in this section.

LOOKING AHEAD TO THE YEAR 2040…ENVISION VIRGINIA BEACH

We know that our future holds continued promise, prosperity, and opportunity as we strive to be a "City for a Lifetime" for our present and future residents and businesses. **This Comprehensive Plan, *It's Our Future: A Choice City,*** looks ahead to the Year 2040. It is our blueprint and policy document guiding sustainable physical growth and development over the next 25 years. It is the City's seventh Comprehensive Plan and it builds on a strong foundation of continuous comprehensive planning initiatives begun in 1979 when the City's first Comprehensive Plan was adopted. To prepare this latest update to our Comprehensive Plan, we have carefully considered our past, our current conditions, recent trends, emerging issues, projections, and new state planning mandates. We have engaged our citizens to hear what they value and what is important to them over the next 20-25 years. Our Comprehensive Plan reflects our community values, aspirations, and choices, which are visualized in the word cloud below.

International
Regional
World-class
Transportation
Learning
Diversity
Community
Life-long
region
Children
waters
Light-rail
Arts
Tourism
Alternative
Family
Clean
Technology
Paths
Green-City
Jobs
Liveable-City
Cleanest
Connected
Fun
Business
Cultural
Memorable
Healthy-Life-Style
Walkways
Strong-families
Multi-use
Best
High-skilled
Organic
Youth
New
Character-building
facilities
tourism
Strong
in
Healthy-food
airport
energy
Local-food
Multi-generationalfamily
Healthy
succeed
Efficient
Bikeways
RegionalismAccess-World
education
Gateway
Leader
High-Tech
options
Athletics
effort
Bike
suceed
workforce
Parks
Beaches

CHAPTER 1 - PLANNING AREAS

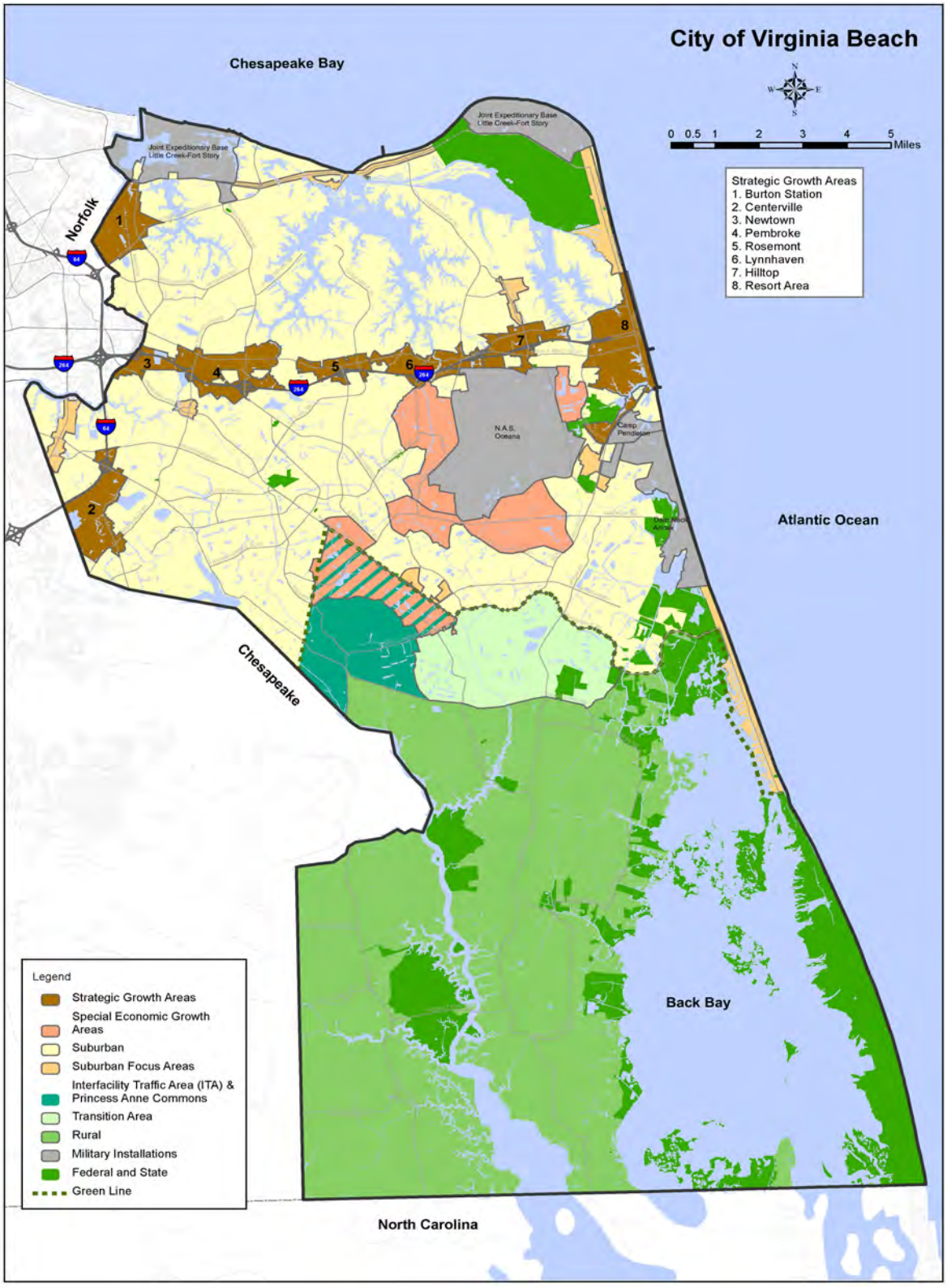
The City of Virginia Beach is divided into five "Planning Areas" in this Comprehensive Plan, which is located on the "Planning Areas/Planned Land Use Map" in Section 1.1.

Each Planning Area listed below represents our desired future land development pattern for that part of the City:

- Urban Areas (Strategic Growth Areas) – Section 1.2
- Suburban Area – Section 1.3
- Princess Anne Commons & Transition Area – Section 1.4
- Rural Area – Section 1.5
- Military Installations & Support – Section 1.6

These sections describe each Planning Area in detail and provide land use policies, as well as recommended actions to be undertaken in the future.

1.1 – Planning Areas Planned Land Use Map



Planned Land Use Map

1.2 - URBAN AREAS (STRATEGIC GROWTH AREAS)

INTRODUCTION

The vision of the Strategic Growth Areas (SGAs) embodies a vertical mix of urban uses, great streets and well-designed pedestrian connectivity, mobility and transit alternatives, urban gathering places, land use patterns that foster economic growth through efficient use and reuse of land, neighborhood protection, "green" building and infrastructure opportunities, and a variety of civic, commercial, artistic, and ethnically diverse areas.

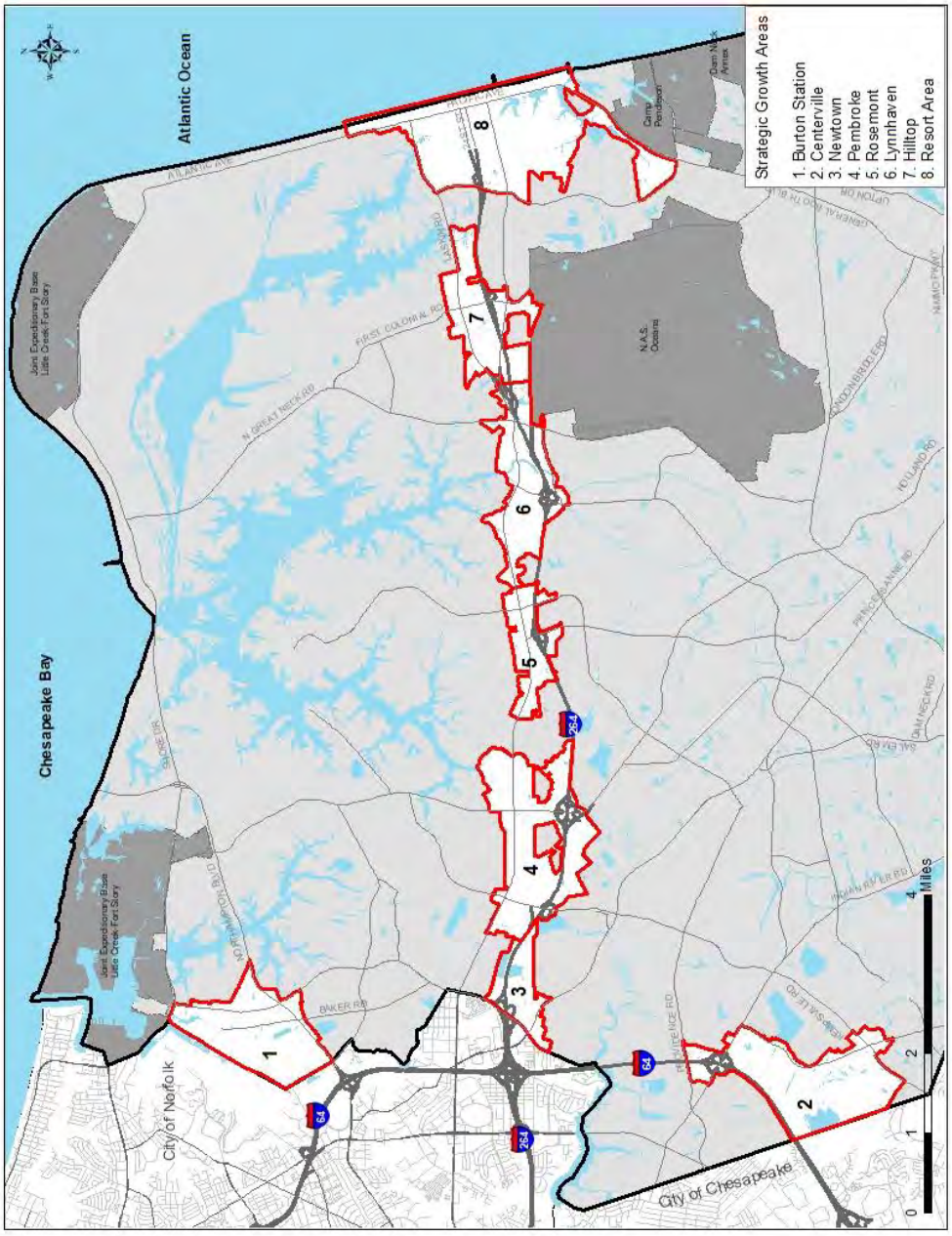
Virginia Beach Town Center - Urban Lifestyle

The City of Virginia Beach celebrated its 50th anniversary in 2013. Although we are a relatively young city, we have enjoyed robust growth throughout much of our history since merging with Princess Anne County. This rapid growth has resulted in a dwindling supply of undeveloped land. Recognizing the importance of preserving our Rural Area, we established planning policies in 1979, and introduced the 'Green Line' urban growth management tool at that time, to channel growth and infrastructure improvement to the northern half of the city. As developable land in this area built out over time in a sprawling suburban development pattern, the City Council recognized the need to accommodate future growth and preserve the established, stable residential neighborhoods in our Suburban Area. The solution was to identify areas that could be redeveloped into more urban-style areas - our Strategic Growth Areas (SGAs). These SGAs not only allow our city to continue to grow while preserving our Rural and Suburban Areas, they also create a third lifestyle option for our citizens to enjoy - Urban Areas.

STRATEGIC GROWTH AREAS (SGAs) ARE URBAN DEVELOPMENT AREAS (UDAs)

The SGAs were first designated in the *2003 Comprehensive Plan* as ideal places to absorb future growth by redeveloping carefully selected, somewhat obsolete or tired suburban-format area into a higher density, more efficient urban land use form. Over time, the City has refined its SGA location strategy. Today, there are 8 SGAs as follows, which can be found on the locator map located on p. 1-5.

- Burton Station
- Centerville
- Hilltop
- Lynnhaven
- Newtown
- Pembroke
- Resort
- Rosemont



STRATEGIC GROWTH AREAS LOCATOR MAP

Combined, these SGAs constitute only 2% percent of the City's total land area of 258 square miles. This decision by our city leaders came years before the Commonwealth of Virginia mandated localities in 2007 to designate Urban Development Areas (UDAs) in their Comprehensive Plans. This mandate became voluntary in 2012 and was further relaxed in 2015. Under the new definition, UDAs can be any area(s) designated in a Comprehensive Plan for higher density development that incorporates the principles of Traditional Neighborhood Development. Traditional Neighborhood Development embodies classic characteristics of traditional communities such as walkable neighborhood centers, interconnected streets and blocks, diversity of land uses, and easy access to jobs, housing, and recreation by a variety of travel options. Our SGAs have been found to meet the requirements of the Code of Virginia, Section 15.2-2223.1 regarding "Urban Development Areas."

The City has identified Strategic Growth Areas to:

- provide opportunities for continued physical and economic growth;
- help prevent urban sprawl;
- protect our established residential neighborhoods and rural areas;
- maximize infrastructure efficiency; offer more choice in built environments; and,
- create unique and exciting urban destinations.

GUIDING PRINCIPLES FOR STRATEGIC GROWTH AREAS

1. Encourage efficient use of land resources
2. Maximize use of infrastructure
3. Create a compatible mix of uses
4. Offer a range of transportation options
5. Design at a human scale
6. Promote transit-oriented development
7. Diversify our housing stock
8. Provide accessible parks, open spaces, and recreation facilities
9. Expand upon our green sustainable infrastructure
10. Cultivate Arts and Culture
11. Preserve designated historic resources
12. Plan for sea level rise and recurrent flooding

The following describes each of the SGA Guidelines Principles and intended outcomes for the SGAs:

1. ENCOURAGE EFFICIENT USE OF LAND RESOURCES

The land use techniques of higher density and more vertical development, infill development, regional stormwater management solutions, and structured parking are key components to successfully achieving a more efficient pattern of growth. The benefits include reduced sprawl, protection of existing stable neighborhoods, increased protection of farmland and open spaces, reduced dependence on the automobile and more cost-effective use of existing infrastructure.

Pembroke SGA - Urban Core District

2. MAXIMIZE USE OF EXISTING INFRASTRUCTURE

Urban development patterns promote a more efficient and cost-effective use of existing public infrastructure and services such as roads, schools, water, sewer, police, fire, rescue, and others. Numerous studies have demonstrated that development within appropriate areas where infrastructure and services already exist provides a more efficient and cost-effective use of public funds than continued expansion of infrastructure and services into undeveloped areas

3. CREATE A COMPATIBLE MIX OF USES

Providing a complementary and vertical blend of residential and non-residential uses within reasonable walking distances with well-designed connectivity to one another is an important part of a successful urban development strategy. Effective mixed-use developments also have a 'critical mass' where the mixture of uses is such that the need for an automobile for routine trips for goods and services is significantly diminished. Examples of mixed-use include the co-location of corner markets and shops lining streets with residential units located above. Architectural design considerations and control of the hours of business operation must be factored into the land use strategy. The careful placement of residences, offices, shops, educational and cultural institutions, recreation areas, public service facilities, and open spaces designed as part of an attractive, pedestrian-oriented, urban environment contributes to:

Concert goers enjoy evening entertainment at 31st Street Stage in Neptune Park

- independence of movement and ease of access between home and neighborhood-serving destinations;
- safer commercial areas due to the 24-hour presence of people or what is termed the 'eyes of the community';
- reduction in automobile dependency and opportunities for shorter work trips by focusing on mixed-use and transit-oriented development; and
- the development of a transit-oriented and multi-modal transportation system, in conjunction with planned development and mixed-use projects.

4. OFFER A RANGE OF TRANSPORTATION OPPORTUNITIES

As noted above, urban development patterns afford a greater choice of transportation alternatives and less congestion than is otherwise experienced in communities. A three year study, Measuring Sprawl and Its Impact, by researchers from Rutgers University, Cornell University, and Smart Growth America concluded that, "People living in more sprawling regions tend to drive greater distances, own more cars, breathe more polluted air, face greater risk of traffic fatalities, and walk and use transit less. This study shows that sprawl is a real, measurable phenomenon with real implications for peoples' everyday lives. Regions wishing to improve their quality of life should consider taking steps to reduce sprawl and promote smarter growth." [i]

Urban, mixed-use development that contains convenience, variety, and density of use, and integrates well-designed pedestrian systems, streetscapes, and transit opportunities can contribute to:

- decreased dependence on the automobile, especially the single-occupant vehicle;
- extension of safe, convenient and efficient light rail transit service that provides alternative mobility options, which can be particularly helpful in enabling young non-drivers, seniors, and those with physical disabilities to be fully engaged in community life;
- reduction in citywide Vehicle Miles Traveled (VMT);
- increased opportunities for more efficient and cost-effective forms of shared and mass transportation;
- increased opportunities with well-designed connectivity to commute by walking or biking;
- opportunities for local and metropolitan transit systems to link to regional and interstate transportation systems;
- cleaner air; and
- safer travel.

Vibrant urban places typically offer transportation choices

5. DESIGN AT A HUMAN SCALE

Part of what is required for urban, mixed-use developments to become acceptable patterns of development within communities is the creation or re-creation of well-designed areas that are safe, attractive, and convenient. It is important for these areas to be built at a 'human scale,' especially as people experience activity along the streets, sidewalks, and public spaces. For example, the sounds from outdoor cafes, people gathering around fountains in public plazas, and aromas from local coffee shops and bakeries all combine to create a sense of interest, excitement, and social interaction. There are distinct physical characteristics that define the built environment of the urban center. These include a vertical mix of residential and non-residential

uses within architecturally interesting buildings and urban streetscapes designed with special paving, landscaping, lighting, and other features that create a visually exciting and inviting environment.

6. PROMOTE TRANSIT-ORIENTED DEVELOPMENT

Where mass transit stations are located, surrounding development should be designed to support their accessibility and use. Areas within one half mile of a transit station are particularly important as they represent "walksheds" for the stations. Transit-oriented development incorporates higher density, more compact, mixed-use developments as described above with significant pedestrian and bicycle infrastructure. Accommodating private use of automobiles is considered a secondary goal to other modes of transportation.

Example of Transit-Oriented design in Nashville, TN

7. DIVERSIFY OUR HOUSING STOCK

Providing a variety of housing choices in terms of type (for sale or rent), size (efficiencies, apartments, townhouses, row houses), and affordability is important to meet the needs of all our citizens and attract new businesses and workers to our city. A decent, affordable home should be a right, regardless of income. Being able to live where you work contributes to the quality of life not just for the individual, but for the community as well. When our workforce is able to live where they work, we all benefit. When people have decent, affordable and stable housing, children do better in school, it is easier to keep or secure a job, families have more disposable income to spend thereby benefiting the local economy, there are fewer health (mental and physical) issues, and family stability is much greater. All of the aforementioned circumstances strengthen our community. Incentives for the construction of workforce housing in areas of the city, including Strategic Growth Areas, in which the Comprehensive Plan recognizes increased density to be appropriate, are provided in the form of increased density allowances under the Workforce Housing Program. In some cases, high cost infrastructure requires public incentives to achieve affordability. Equally important is to ensure that workforce housing will be well-designed, of high quality, and well-integrated into the overall development of which it is a component. For additional information about the Workforce Housing Program visit www.vbgov.com/government/departments/housing-neighborhood-preservation/workforce-housing/Pages/default.aspx.

8. PROVIDE ACCESSIBLE PARKS, OPEN SPACE, AND RECREATION FACILITIES

Parks, open space, and recreation facilities support community engagement by providing residents with a venue for participation in, and attachment to, their communities. They provide a sense of place and offer essential life-enhancing qualities that aid community and individual well-being. The establishment of such facilities in newly developed or redeveloped areas should be purposefully planned in order to supplement existing recreational opportunities and maintain a high quality of life to be enjoyed by existing and future residents.

9. EXPAND GREEN INFRASTRUCTURE

Urban green space

Green infrastructure mitigates the negative impacts of land development by simulating natural processes in order to provide flood protection, cleaner air, cleaner water, wildlife habitat and corridors, and cultural and recreational opportunities. Green infrastructure elements can be woven throughout a watershed, from smaller scale elements that can be integrated into development sites to larger scale elements that span entire neighborhoods. Some examples are:

- *downspout disconnection* – routing rooftop drainage to rain barrels, cisterns or permeable areas;
- *rain gardens* – shallow, vegetated basins that collect and absorb rain from rooftops, sidewalks, and streets;
- *permeable pavements* – paved surfaces that infiltrate, treat, and/or store rainwater where it falls;
- *green streets and alleys* – green streets and alleys use a combination of vegetated and engineered strategies to manage rain, allowing it to soak into soil, filtering it, and reducing the amount of storm water transported to an outfall;
- *green roofs* – roofs covered with growing media and vegetation that absorbs heat and rainwater;
- *urban tree canopy* – planting and protecting trees provides shade and reduces storm water by intercepting precipitation; and,
- *park and conservation lands* – creating new open spaces and protecting sensitive natural areas within and adjacent to Strategic Growth Areas mitigates the water quality and flooding impacts of urban storm water, while providing cultural and recreational opportunities for residents.

"The Wave" - Public at the Oceanfront

10. CULTIVATE ARTS AND CULTURE

Arts and culture should be woven into the fabric of the community, becoming an integral force in urban design, the educational system, commerce, community celebrations, neighborhood life, and public sector institutions. We need to create space for the arts to take hold and grow. When designed and built with quality in mind, these physical and cultural elements galvanize to foster a positive sense of urban place - something that is enjoying a resurgence of public interest in many communities across the country.

Expanding public art and place-making beyond traditional objects to create events, spaces, and public places animates the City and brings the community together for unique public experiences. Programming for these experiences can be both temporary (event-based) and permanent installations that address community beautification. They can be integrated into redevelopment and new construction projects. Development, support, and promotion of multicultural facilities should be elevated to diversify the arts through both traditional and contemporary styles.

11. PRESERVE DESIGNATED HISTORIC RESOURCES

It is the policy of the City to use all available resources including those provided by the City's Historical Review Board, Historic Preservation Commission, and the Princess Anne County/Virginia Beach Historical Society to preserve designated historic resources. Efforts to retain these historic resources should be accomplished in a responsible and innovative manner. The efforts include providing land use planning guidance and tax credit assistance to owners of historic properties in order to help protect and preserve the City's limited number of valuable historic resources and surrounding open space areas. Owners of qualified properties should be encouraged to participate in the Virginia Beach Historical Register program and receive recognition for their contributions to our City's heritage.

Entertainment at the Francis Land House in Lynnhaven SGA, circa 1850

12. PLAN FOR SEA LEVEL RISE AND RECURRENT FLOODING

Due to our abundance of shoreline, sea level rise and recurrent flooding are topics of great concern for our city and the entire Hampton Roads region. Fortunately, our Strategic Growth Areas are generally well-placed at higher elevations and away from inland tidal waters. A few of the SGAs either border or contain existing inland tidal waters. These include:

- Thalia Creek on the eastern boundary of the Pembroke SGA;
- the southern tributaries of the Eastern Branch of the Lynnhaven River, which runs through the center of the Lynnhaven SGA to London Bridge Creek;
- Linkhorn Bay on the eastern border of the Hilltop SGA; and
- Lake Rudee, Lake Holly, Owls Creek, and the southern tributaries of the Resort SGA.

Accordingly, our SGA Plans recommend substantial buffers between new development and these waterways, and in some cases, reclaiming these buffer areas for open space as opportunities arise. The Sea Level Wise Adaptation Strategy assesses impacts to the Strategic Growth Areas and our City as a whole, as well as identifying strategy elements that will improve the City's resilience to the flood conditions of both today and tomorrow.

Thalia Creek Greenway in Pembroke SGA

DISTINCT QUALITIES

While they share many common goals, our Strategic Growth Areas also possess some distinct qualities. First, these areas vary in their ability to absorb the amount and type of new growth and redevelopment. For example, the Centerville, Newtown, Pembroke, and Rosemont SGAs are located along I-64, I-264, and Virginia Beach Boulevard near key highway interchanges and are unencumbered by AICUZ high noise or accident potential zones. These areas are most suitable for a blend of new residential and complementary non-residential uses in the form of attractive, more intense mixed-use centers.

Other Strategic Growth Areas may not be suitable for new residential growth but can expand upon their unique qualities, such as a regional shopping destination in the Hilltop SGA and coveted waterfront properties in the Lynnhaven SGA. The Burton Station SGA is strategically located to take advantage of regional truck, rail, air and maritime shipping services. The Resort Area is a key part of our travel and tourism industry that attracted 5.9 million overnight visitors, who spent $1.3 billion citywide in 2013. As this SGA continues to grow as a vacation and convention destination, introducing new residential and year-round uses that include practical shared structural parking strategies in compatible locations will further support this vital economic engine for our city.

IMPLEMENTING THE SGA PLANS

Having now adopted master plans for our eight Strategic Growth Areas (SGAs), we are positioned to realize the real return on investment put into such planning for our future to truly be "A Community for a Lifetime." Each SGA Plan includes an implementation section that prioritizes public and private projects needed to reach the long-term vision. The public and private sectors must work together to implement these plans.

Groundbreaking ceremony in Pembroke SGA

SGA DEVELOPMENT INCENTIVES

Identifying capital projects that will catalyze and support private development is essential to plan implementation. Each SGA Plan identifies key infrastructure initiatives to be considered and prioritized in the annual Capital Improvement Project (CIP) planning and budgeting process.
In addition to capital infrastructure projects, project-specific incentives are available to encourage development consistent with the City's adopted SGA Plans. On January 14, 2014, City Council approved a resolution updating a policy adopted in 2001, "Guidelines for Evaluation of Investment Partnerships for Economic Development." The updated policy focuses on partnerships that are consistent with plans for the City's Strategic Growth Areas (SGAs) and Special Economic Growth Areas (SEGAs). Qualifying projects must be financially feasible for the City and the private partner. Investment partnership incentives may take a variety of forms depending on the nature of the project. Most projects will have many, but not necessarily all, of the characteristics identified in the adopted resolution, but are nevertheless desirable projects. For assistance with developing in the SGAs or information regarding the Investment Partnership Incentives Policy, visit www.vbgov.com/government/departments/sga/Pages/default.aspx.

All customers with private development proposals are strongly recommended to contact the Department of Planning & Community Development prior to entering the design process. Staff is available to interpret the SGA Plan as it applies to the subject property, listen to the customer's goals for the property, and collaborate to find mutually agreeable development plans for both parties. Pre-design topics may include proposed land use, site design, building design, supporting infrastructure needs, how the proposal complements the SGA Plan, and any other questions or concerns about the project.

INTERIM USE POLICY

In order to achieve the long range vision identified in each SGA Plan, discretionary land use decisions affecting property in the Strategic Growth Areas should be based upon the guiding principles noted above. Following are area-specific planning recommendations, and applicable design principles that relate to development or redevelopment proposals in these areas. *Recognizing that the transformation of the SGAs will be gradual, and that land development is market driven, our objective is to achieve quality urban site design and building form with flexible building types that will enable a transition to recommended uses over time. Uses deemed inconsistent with the long-range vision in the adopted plans, but acceptable as interim uses given current market forces and land uses in the area, should be granted for a limited period of time.* These time periods may be extended on an annual basis if the Zoning Administrator and Director of Planning & Community Development find that the current development trend is not indicative of imminent redevelopment consistent with the adopted SGA plans.

UPDATING THE PLANS

Just as the Comprehensive Plan is reviewed in five-year cycles as required by the Code of Virginia, our SGA Plans will require periodic updates to adjust to changing circumstances, community goals, and market trends. These are living documents that adjust as redevelopment evolves. All plan revisions will be the product of the same open, collaborative process used to prepare all of our City's long-range plans.

Citizens help plan the SGAs

SGA PLANNING RECOMMENDATIONS

Master plans for each of the City's eight SGAs were prepared through extensive planning, research, analysis, and community engagement and have been adopted by reference as part of this Comprehensive Plan by the following amendment dates:

- Resort SGA (December 2, 2008),(Update June 2, 2020)
- Burton Station SGA (January 27, 2009), (Update November 20, 2018)
- Pembroke SGA (November 10, 2009)
- Newtown SGA (July 6, 2010)
- Rosemont SGA (September 13, 2011)
- Lynnhaven SGA (April 24, 2012)
- Hilltop SGA (August 28, 2012)
- Centerville SGA (March 26, 2013)

The boundaries of each SGA and the general area-specific recommendations from the SGA Master Plans are presented on the following pages. The detailed SGA Master Plans can be viewed at www.vbgov.com/government/departments/sga/Pages/default.aspx.

BURTON STATION STRATEGIC GROWTH AREA

DESCRIPTION

The Burton Station Strategic Growth Area (SGA) is predominantly industrial, but also has significant tracts of land devoted to residential and commercial uses with a considerable amount of undeveloped land that lacks a good network of internal streets. The SGA is located at the convergence of major highway, rail, and airport facilities, and benefits from nearby deep water ports and a major military installation.

The Burton Station community and the Northampton Boulevard Corridor have begun to realize long-neglected capital and private investment that is both improving the quality of life for residents and creating more attractive corridor aesthetics in both commercial and residential building design and streetscape landscaping. The original Northampton Boulevard Corridor SGA Implementation Plan was adopted by the City Council on January 27, 2009. In 2018, City Council adopted a revised Burton Station Strategic Growth Area Plan that completely replaces the 2009 version and is available in the online document library at www.vbgov.com/Planning .

VISION

The ultimate pattern of development envisions a revitalized Burton Station neighborhood that achieves a land use and design strategy that respects the heritage of Burton Station and is an integral part of a larger planned mixed use community with residential, commercial, open space and employment opportunities.

Improved Burton Station Road Concept

SGA DESIGN PRINCIPLES

- Respect traditions and context
- Optimize and extend connections
- Develop sustainable initiatives
- Provide a mix of uses
- Encourage economic development
- Improve the quality of life

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Burton Station SGA Master Plan 2018 Update*:

- Provide infrastructure including roads, utilities, and stormwater facilities needed to support existing commercial, industrial, and mixed use within this SGA.

PLAN IMPLEMENTATION STRATEGIES

Northampton Boulevard corridor redevelopment concept

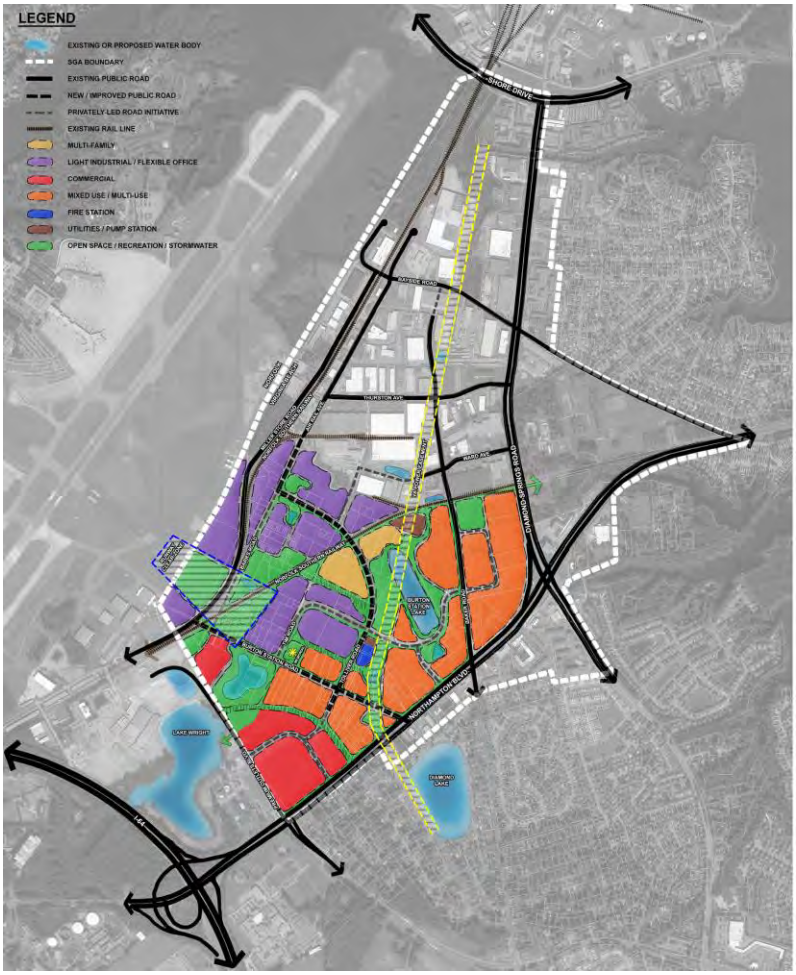
Recommended Action Plan

- Complete current City projects that are underway.
- Facilitate development in Burton Station Village.
- Fund CIP for Burton Station Road west improvements.
- Fund CIP for Tolliver Road west improvements.

Burton Station "Main Street" retail corridor concept

Programmed and Funded Capital Improvement Projects (CIPs)

- 7-036000 - Baker Road Culvert & Ditch Improvements. This project will address roadway/property flooding through design and construction to upgrade existing pipe/drainage system from Baker Road to Diamond Springs Road, north of Northampton Boulevard, to minimize roadway/property flooding.
- 9-081000 - Strategic Growth Area Projects, Burton Station Village Phase I. Property acquisition and drainage improvements.
- 9-022000 - Burton Station Road Improvements, Phase I. This project will provide basic and long needed utility services and standard roadway improvements including curb and gutter, sidewalk, and streetlights necessary to preserve and revitalize the existing residential community consistent with the phasing and implementation goals of the adopted SGA Plan.
- 9-091000 - Burton Station Road Improvements, Phase III. The purpose of this project is to provide a connection between Burton Station Road and Air Rail Drive via an extension of Tolliver Road to provide infrastructure necessary to promote future development consistent with the SGA Plan.
- 3-075000 – Fire/EMS Station Burton Station. This project provides for the design and construction of a new Fire and EMS station in the Burton Station area to serve residents and businesses in the area.
- For detailed Burton Station SGA Master Plan recommendations and information visit the online document library at www.vbgov.com/Planning.



Burton Station SGA Master Plan - Conceptual Plan

Burton Station Master Plan

CENTERVILLE STRATEGIC GROWTH AREA

DESCRIPTION

The Centerville Strategic Growth Area (SGA) is unique from other SGAs because it consists of several large-scale ownership and single-use areas, such as the Christian Broadcasting Network (CBN), Regent University, the City Landfill, and a private landfill. The relationship between these uses and their impact on one another, and surrounding residential neighborhoods, deserves special consideration. Located in the southwestern part of the City, the Centerville SGA is generally bound by Interstate 64, the City of Chesapeake, Centerville Turnpike, and Kempsville Road. The SGA's primary asset is its large expanse of undeveloped land fronting I-64 that offers economic development opportunity for future corporate office headquarters and expansion area for Regent University.

The Centerville SGA is home to a rapidly growing institution of higher learning - Regent University - and has become our city's first four-year college. The university shared its master plan with city planners to create the concept of a future university village that enables the university to expand and address its growing student housing needs while encouraging surrounding residents to take advantage of university offerings in employment, dining, entertainment, and small shops. This SGA, due to its lack of environmental constraints, affords an opportunity for significant economic development adjacent to the Interstate and a home to future Class A office space of a design that continues the architectural themes found on the campus. While the municipal landfill at the western edge of the SGA will continue

to operate until it reaches capacity, the SGA plan envisions a new district park once it is closed that is modeled after the City's beloved and well-used Mt. Trashmore Park. The *Centerville SGA Master Plan* was adopted by the City Council on March 26, 2013 and is available in the online document library at www.vbgov.com/Planning.

VISION

The vision for the Centerville SGA is to become an education-oriented master-planned community, which capitalizes on the regional access and visibility provided by I-64, and the existing institutional anchors of CBN and Regent University. The Plan envisions a mixed-use central village with connected trails to campus life, diverse neighborhoods, office, retail, and open space.

Concept for Regent University Quad

SGA DESIGN PRINCIPLES

- Regenerate existing development areas to capitalize on existing public infrastructure investments.
- Build a mixed-use center for Centerville.
- Better connect to existing parks and the Regent University campus through expanded trail networks.
- Improve pedestrian and trail facilities to connect neighborhoods to future transit and neighborhood centers.
- Mitigate impacts to the Elizabeth River through stormwater best management practices.
- Continue to diversify housing choice, including workforce housing.
- Improve the jobs/housing balance to increase capture rate and decrease traffic congestion.

- Identify immediate and interim actions for the landfills to effectively mitigate against adverse impacts.
- Pursue a joint planning strategy with the City of Chesapeake.
- Build a transportation infrastructure network that provides for safety, equity, choice, and economy.
- Create an education-oriented, master-planned community as a unique identity for the Centerville SGA.

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Centerville SGA Master Plan*:

- Establish a multi-modal circulation structure to connect Regent University within itself and to surrounding neighborhoods and the regional transportation network.
- Preserve the existing character of the campus by placing buildings around quad spaces.
- Create new parks and open space systems to serve the University's students and faculty.
- Build a diversity of housing types to create a vibrant, authentic, and inclusive place.
- Mix residential with retail uses.
- Integrate a variety of natural and designed open space types.
- Buildings should front the streets with parking primarily located behind in shared facilities.
- Provide a 50-100 ft. buffer between development and I-64.
- Connect the Regent campus and residential areas through a street and trail network.
- Incorporate three to five-story suburban office development in the corporate office area.
- Develop shared sports facilities with the university.
- Take advantage of the proximity to highway location through improved street frontage.
- Continue the residential character of the surrounding area with the Brandon neighborhood expansion.

PLAN IMPLEMENTATION STRATEGIES

The Centerville SGA Plan builds on the momentum generated by the impending road expansion investments to stitch together a cohesive University district that initiates private development and redevelopment of individual parcels using the general street framework suggested by the Master Plan.

Recommended Action Plan

- Update zoning regulations based on the SGA plan recommendations.
- Implement Centerville's portion of the City-wide trail system as roads and streets are rebuilt.
- Develop a comprehensive stormwater management strategy.
- Provide development standards for frontage landscape, parking lot design, street furnishings, exterior signage, storefronts, and lighting.
- Implement the following key infrastructure improvements:
    - New Kempsville Road and Indian River Road intersection
    - Expansion of Centerville Turnpike and Indian River Road intersection
    - Widening of Centerville Turnpike from Indian River Road to Kempsville Road
    - Completion of Lynnhaven Parkway
    - Widening of Centerville Turnpike from Kempsville Road to City line
    - Realign entry into landfills and stabilize the slopes of Cell 1
    - Extension of the River Birch Run to connect to Centerville Turnpike
    - Completion of green network to Indian River Park along River Birch Run extension

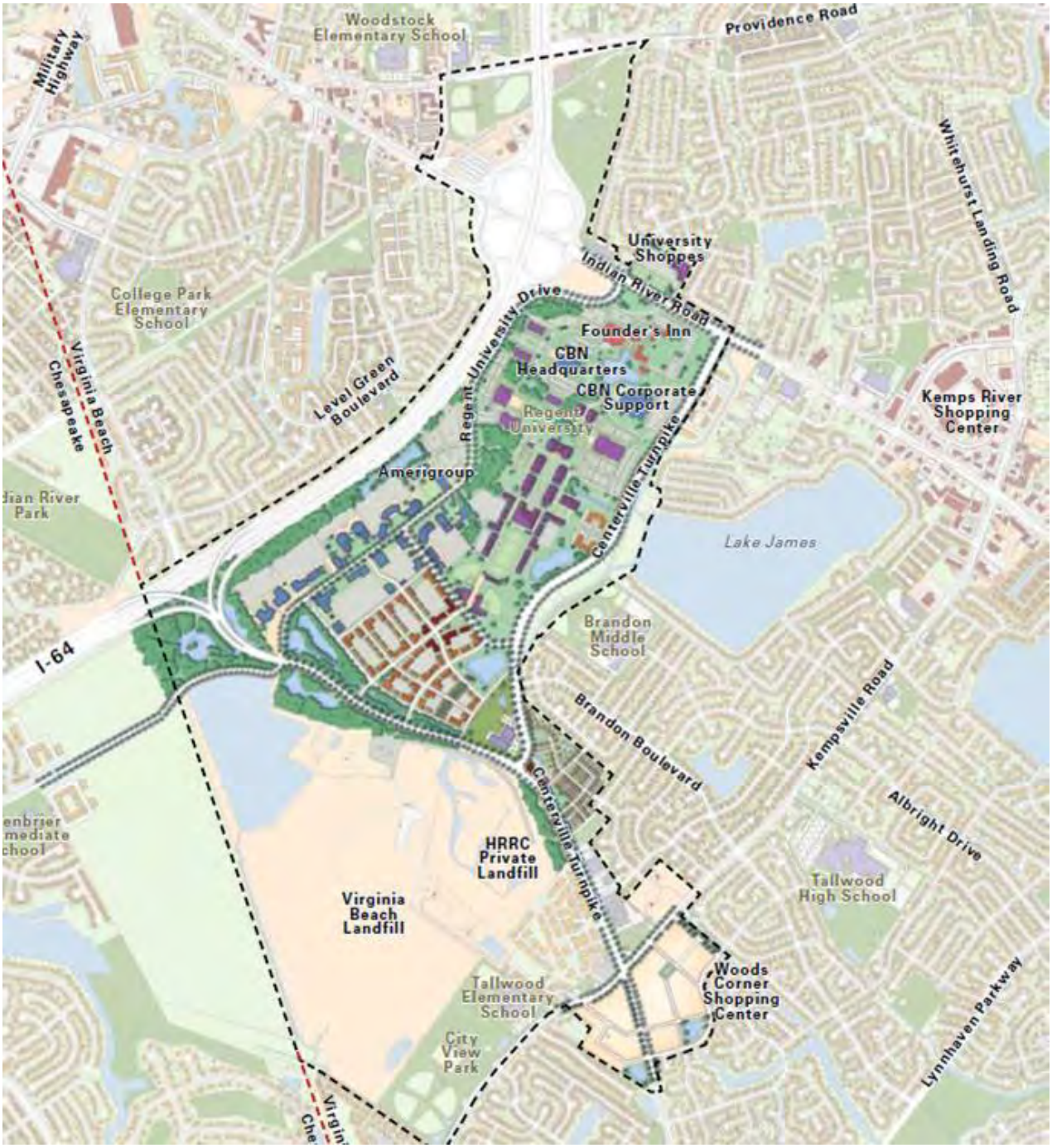
- Neighborhood park at back of Woods Corner Shopping Center
- Landfill/waste management facility buffers and stormwater management south and west of Centerville Turnpike
- Regional stormwater management system
- I-64 Interchange

Proposed "University Village" main street concept

Programmed and Funded Capital Improvement Projects (CIPs)

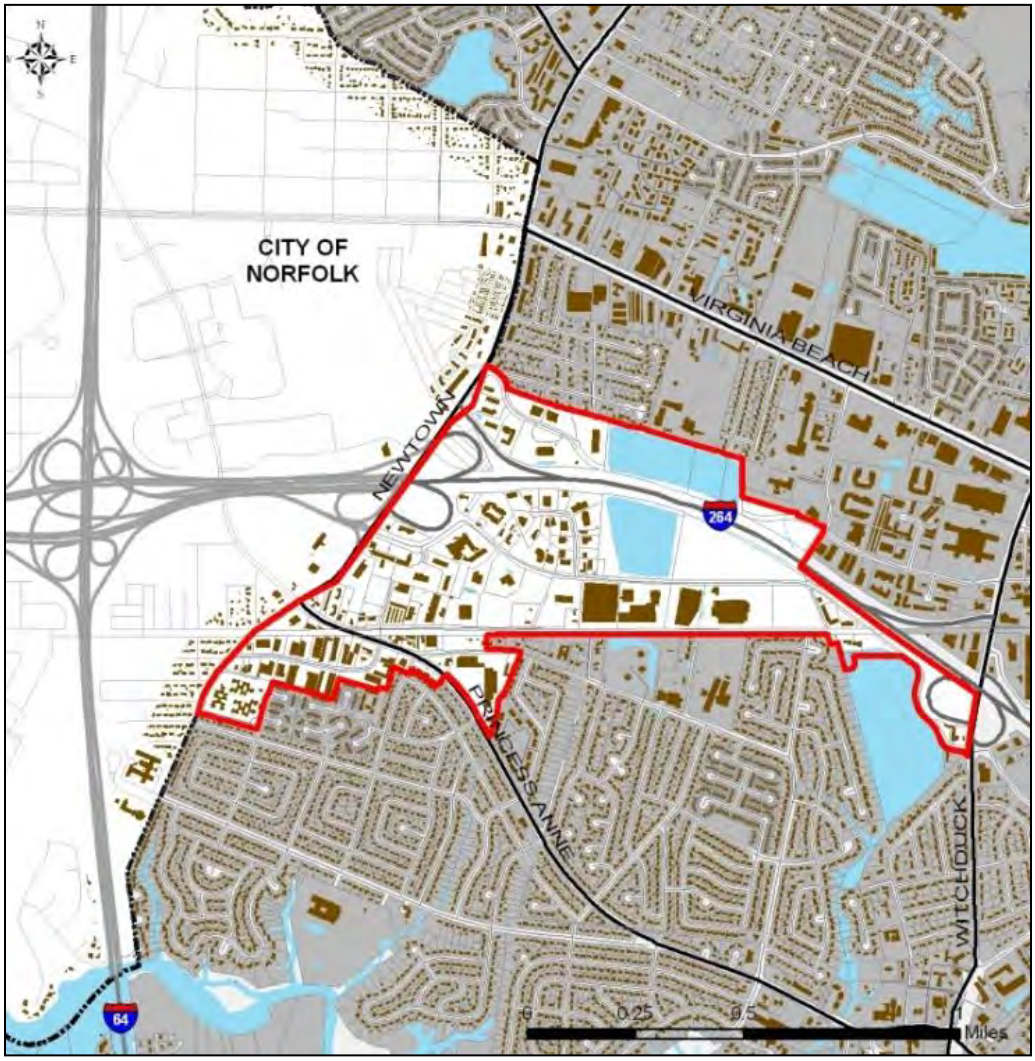
- 2-409000 - Centerville Turnpike – Phase II. This project addresses congestion in the Centerville area. This project is for the construction of a four-lane divided highway within a 130 foot right-of-way from Indian River Road to Kempsville Road, a distance of 1.85 miles. This project will provide improvements at the Indian River Road intersection, including triple left turn lanes onto Indian River Road from Centerville Turnpike. This project will include a four lane divided highway, sidewalk, on-street bicycle facilities, and landscaping.
- 2-093000 – Buses for Virginia Beach Transit Extension. This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system. With the extension of The Tide, there is a new bus route which will serve the Centerville SGA as it would extend north/south between the new Witchduck Light Rail Station to Greenbrier Mall area by way of Witchduck Road and Kempsville Road.
- 3-047000 – Landfill #2 Phase 1 Capping – The Phase 1 landfill cell is near capacity. Capping of completed landfill cells is required as part of the Virginia Solid Waste Permit #398.

For detailed *Centerville SGA Master Plan* recommendations and information visit the online document library at www.vbgov.com/Planning .



Centerville SGA Master Plan - Conceptual Plan

NEWTOWN STRATEGIC GROWTH AREA



DESCRIPTION

The *Newtown Strategic Growth Area* is a western gateway to the City of Virginia Beach and is bisected by I-264. The future pattern of growth for Newtown and Pembroke are deemed to complement one another. Much of the area is developed with low to mid-rise structures representing a mix of office and light industrial uses of varying quality. There are a number of undeveloped and underdeveloped properties located throughout this SGA. The easternmost transit stop on the Hampton Roads Transit Light Rail system, that serves Norfolk, is immediately west of this SGA. This transit stop is conveniently located for much of the Newtown SGA and will enable the redevelopment of the area as a transit-oriented district.

The Newtown SGA sits at the eastern terminus of the first segment of the region's light rail transit system, The Tide, with service only in Norfolk at present. In a landmark decision in 2015, City Council voted to continue developing plans to extend The Tide to Town Center through the Newtown SGA. Newtown's proximity to Town Center has the potential to echo the Town Center's vibrancy but at an appropriate scale and density adjacent to established residential neighborhoods. Historic Kempsville sits to the south of Newtown and is transforming into a mixed-use Suburban Focus Area that seeks to have a character reminiscent of Colonial Williamsburg, offering small shops and new housing choices.

Intensive road and public space improvements have saddled its main intersection at Witchduck and Princess Anne Roads for a number of years, but private investment has begun as a result of these public investments. The *Newtown SGA Master Plan* was adopted by the City Council on July 6, 2010 and is available in the online document library at www.vbgov.com/Planning .

VISION

The *Newtown SGA Plan* envisions land uses transitioning over time to reflect increased land values achieved by improved access and proximity to the light rail station in Norfolk. A new mixed-use district will emerge with a village center, state of the art business parks, an educational campus, and new residential neighborhoods integrated with workforce housing.

Proposed Southern Boulevard commercial and mixed-use redevelopment concept

SGA DESIGN PRINCIPLES

- Mixed-Use and Commercial Buildings – These buildings are focused around Princess Anne Road and Southern Boulevard, proximate to the transit corridor. These buildings should be placed close to the street to promote a pedestrian environment and range from two to five stories in height.
- Office and Institutional Campus Buildings – The Newtown SGA's location and access make it a premier office and institutional address. The office and institutional buildings that locate here should set a new standard in environmental quality, both in building technology and the indoor and outdoor spaces they create. In many cases, these buildings are located along water or other open space.
- Multi-Family Residential Buildings - With the planned improvements to both vehicular and mass transit options, multi-family housing will be an important component to the spectrum of housing offered. Apartments and condominiums will largely be three and four stories in height.
- Single-Family Residences – Newtown is proximate to many residential neighborhoods. The Plan seeks to stitch these neighborhoods together with additional single-family detached and attached housing.

- Parking Garages – The increased land values coming from the envisioned transit corridor and improvements to I-264 will make structured parking a viable and necessary component to development. These structures should be easy to access but screened architecturally with façade treatments and buildings, where possible.
- Improve pedestrian and trail facilities to connect neighborhoods to future transit and neighborhood centers.

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Newtown SGA Master Plan*:

- Reinforce the Newtown site as a "Gateway" into Virginia Beach.
- Create interconnected pedestrian and street frameworks.
- Build parks and open spaces throughout the site.
- Build mixed-use, mixed-income, transit-oriented development.
- Strengthen education and training institutions in the district.
- Build at a compatible scale next to existing neighborhoods.
- Extend a bicycle and trail system through the site.
- Position light rail station as a centerpiece in a gateway public space.
- Develop a shared parking strategy.
- Coordinate transportation improvements including Light Rail, Newtown Road, the Greenwich/Cleveland Flyover, and I-264 access/widening.
- Develop design guidelines for the district.

PLAN IMPLEMENTATION STRATEGIES

The *Newtown SGA Master Plan* transforms underutilized commercial property into a series of mixed-use development opportunities and public infrastructure improvements. A new street framework and block structure provides the access and visibility necessary to consider redevelopment at higher densities. The old commercial properties will be transformed into a new mixed-use center, state of the art business parks, an educational campus, new light industrial space, and new residential neighborhoods.

Recommended Action Plan

- Revise zoning code to regulate building form and update permitted uses.
- Develop design guidelines for the district.
- Install district directional signs on expressway and other major roads leading into the planning area.
- Install signs or community logo in strategic entry locations in order to develop a distinct sense of arrival to the district.
- Develop a shared parking strategy.
- Prepare an overall drainage master plan.
- Create an interconnected pedestrian, trail and street framework.
- Build parks and open spaces throughout the SGA.
- Improve Newtown Road and Princess Anne Road with sidewalks and lane adjustments.
- Redirect Greenwich Road to a new flyover to connect Cleveland Street north of I-264 and cul-de-sac the remainder of the road at the Lake.
- Extend Business Park Drive to create a loop to improve access to the business park.
- Establish a new street network to form a new mixed-use center.

- Build new residential streets in the old Arrowhead Industrial Park to create new development blocks.

Conceptual perspective of the Newtown SGA lakefront

Since the adoption of the *Newtown SGA Master Plan* City Council has taken two actions in support of light rail which significantly impact the *Newtown SGA Master Plan*:

- Adopted a resolution favoring the extension of light rail 3.2 miles from the Newtown Road Station in Norfolk to Virginia Beach Town Center. The extension would include a new station at Witchduck Road and two stations in the Town Center area – one near Kellam Road and one at Constitution Drive. This is called the Locally Preferred Alternative.
- Adopted a budget that includes plans to extend light rail to Town Center, with plans to double the city's bus service, build a walking-biking trail alongside the light rail, and build over 20 new bus shelters.

Based on these actions, a Transit-Oriented Development (TOD) implementation strategy should be developed through a public process for an implementation focus on development and redevelopment areas within one-half mile of the planned light rail stations.

Programmed and Funded Capital Improvement Projects (CIPs)

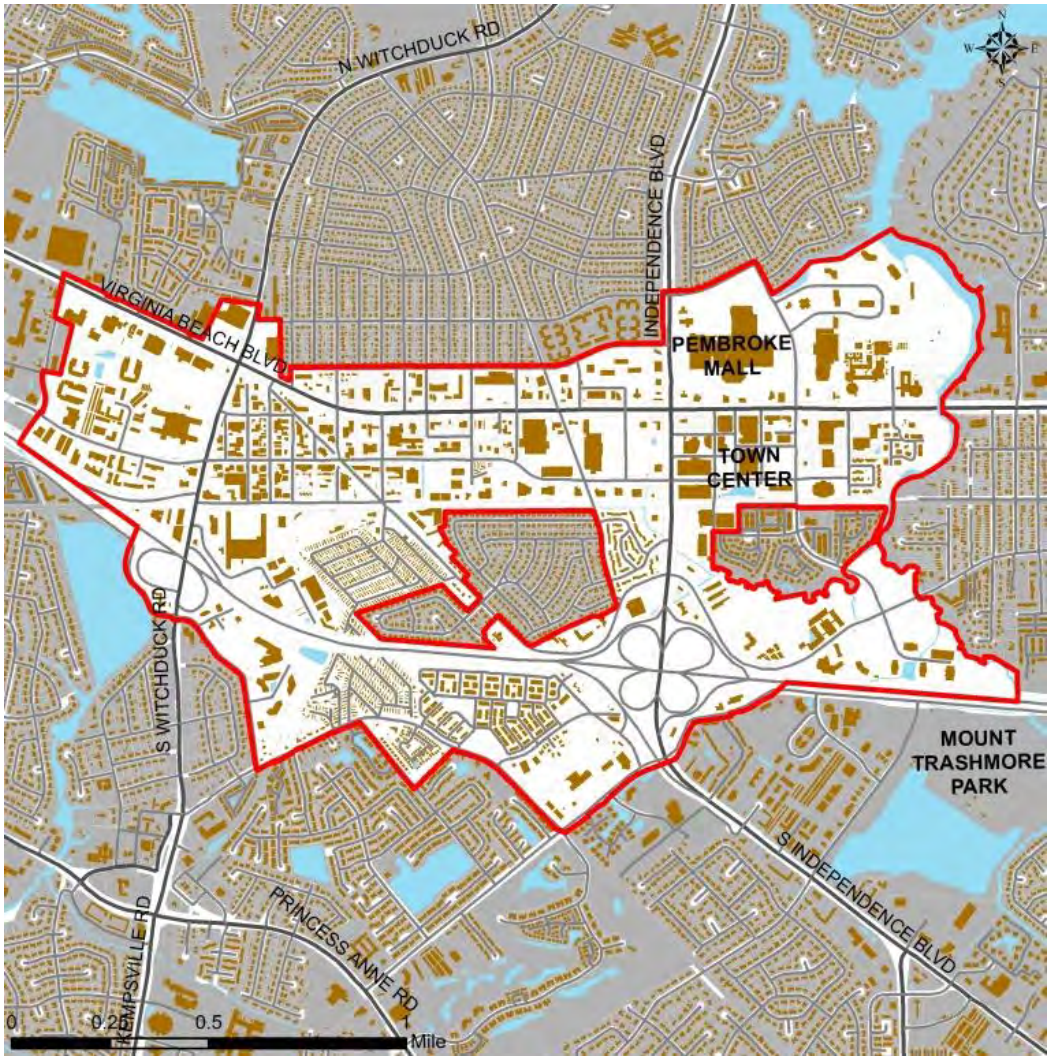
- 9-081000 – Strategic Growth Area Projects – This project will provide planning and design services, build or replace public infrastructure improvements, and acquire property as needed in order to support implementation of the eight SGAs.
- 2-092000 – Virginia Beach Transit Extension Project – This is a design-build project to extend light rail fixed guideway transit, "The Tide," from its terminus at the Newtown Station/Norfolk-Virginia Beach City line, east to Town Center at Constitution Drive.

- 2-093000 – Buses for Virginia Beach Transit Extension – This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system.
- 2-108000 – Light Rail Corridor Shared Use Pathway – This project will fund the design, construction, right-of-way acquisition and site furnishings required to create a shared-use pathway within and /or along the former Norfolk-Southern right-of-way in conjunction with the light rail extension project to provide additional modes of transportation.

For detailed *Newtown SGA Master Plan* recommendations and information visit the online document library at www.vbgov.com/Planning.

Newtown SGA Master Plan - Conceptual Plan

PEMBROKE STRATEGIC GROWTH AREA



DESCRIPTION

The Pembroke Strategic Growth Area (SGA) is a 1,200 acre tract of land located in the heart of the City, generally bound by Thalia Creek to the east, Jeanne and Broad Streets to the north, Clearfield Avenue to the west and Bonney and Baxter Roads to the south. For the most part, this SGA reflects a classic suburban pattern of development. It includes some residential and institutional uses but is dominated by commercial and industrial uses. An exception is Town Center. This vibrant, mixed-use urban center has established itself as a special destination within Virginia Beach and the larger metropolitan area. It is a well-designed urban center with a complement of office, retail, residential, educational, entertainment, cultural, restaurant, open spaces, and other uses. This SGA is served by Interstate 264 and two major arterial roadways, Virginia Beach Boulevard and Independence Boulevard. An unused rail line passes through extending from the Norfolk city line to the vicinity of the Oceanfront Resort Area.

Pembroke has become the City's "Town Center" providing a much desired sense of place central to the city. In just the past 15 years, an iconic skyline has emerged that offers an exciting new residential, employment, shopping, and entertainment address. The City's oldest shopping mall, Pembroke Mall,

has received a facelift, and the Virginia Beach Boulevard corridor that was formerly dominated by the automobile now enables pedestrians to travel safely between the two destinations within Town Center. The arts scene thrives at the Sandler Center, showcasing both celebrity and local talent year-round, and an increasing number of outdoor festivals and events offer free entertainment in every season. The *Pembroke Strategic Growth Area 4 Implementation Plan* was adopted by the City Council on November 10, 2009 and is available in the online document library at www.vbgov.com/Planning.

CBD Bonney Area - Bonney Road development concept

VISION

The vision for the Pembroke SGA 4 is a central urban core with a vertical mix of uses, great streets, mobility and transit alternatives, gathering places, environmental and neighborhood protection, green buildings and infrastructure opportunities providing a variety of civic, commercial, artistic and ethnically diverse areas. The Master Plan describes and provides planning policies for six subareas or districts with each district having its own unique characteristics. These districts include:

- Central Business District (CBD) Core Area – the main business, cultural, and arts center of the Pembroke SGA;
- CBD Bonney Area – a mixed-use office, commercial, residential, and hospitality area to complement the adjacent;
- CBD Waterfront District – located along Thalia Creek combining the surrounding natural environment with recreational and cultural amenities;
- Central Village District – draws from a plethora of activities, interests, and a variety of housing options, all woven into an eclectic neighborhood supporting small business and entertainment venues;
- Western Campus District – a park-like academic and recreational setting that showcases a pedestrian-friendly area; and,

- Southern Corporate District – an urban corporate village defined by unique eye catching office buildings with planned greenways.

This framework concentrates a high density mix of complementary urban uses within a defined central area, creates a skyline for Virginia Beach and provides for decreasing land use densities from the core. Each of these Districts is described in detail in the *Pembroke SGA Master Plan*.

SGA DESIGN PRINCIPLES

- Efficient Use of Land Resources
- Full Use of Urban Services
- Compatible Mix of Uses
- Improve pedestrian and trail facilities to connect neighborhoods to future transit and neighborhood centers
- Transportation Opportunities
- Detailed Human Scale Design
- Environmental Stewardship

Thalia Creek waterfront area promenade concept

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Pembroke SGA Master Plan*:

- Implement transit-oriented development around planned transit stations
- Establish policies for developing affordable housing/workforce housing
- Tailor a Form-Based Code for each district
- Establish a Cultural Arts District in the Core Area
- Expand the Pembroke SGA to include Mount Trashmore Park and the South Independence Commercial corridor

- Design and build the entire length of Cleveland Street to Greenwich Road as a 'Complete Street' to be an attractive and efficient thoroughfare serving many modes of travel
- Develop a public facilities strategy for City-owned lands, considering recreation, library, museum, theatres, education, smaller spaces for visual and performing artists, and other uses

PLAN IMPLEMENTATION STRATEGIES

The Pembroke SGA is located at the major intersection of the primary transportation corridors at a central position of the City's developed area, which presents a unique opportunity for the creation of a world class regional downtown. As the City moves forward and the Pembroke SGA's 1,200 acres continue to redevelop, future planning efforts will need to consider the proposed urban systems on a site-specific level to ensure that the larger goals of the plan will produce a modern metropolitan center.

Western District urban open space concept

Recommended Action Plan

- Implement EMS, fire, and police urban policies and strategies
- Install district directional signs on Expressway and other major roads leading into the planning areas. Install signs or community logo in strategic entry locations in order to develop a distinct sense of arrival to the district.
- Develop a utility framework and urban policies for development of the utilities
- Develop a parking strategy/structured parking
- Develop a public facilities strategy within City owned lands, recreation, and libraries
- Develop an open space/park policy
- Develop an urban plan with Virginia Beach Public Schools for Princess Anne High School
- Build an additional crossing of the I-264 east of the Independence Boulevard interchange at Sentara Way
- Improve Cleveland Street
- Extend Market Street
- Implement the Thalia Creek open space plan – bike paths, walking paths and parks
- Develop designs for Cleveland Street improvements and a connection to Greenwich Road
- Start land acquisitions for City properties to be used as parks and open space
- Pursue the creation of Lynnhaven Landing in coordination with the Lynnhaven Ecosystem Project
- Develop a "Brand Name" for the SGA District

Since the adoption of the *Pembroke SGA 4 Master Plan* City Council has taken actions in support of light rail which significantly impact the *Pembroke SGA Master Plan*:

- Adopted a resolution favoring the extension of light rail 3.2 miles from the Newtown Road Station in Norfolk to Virginia Beach Town Center. The extension would include a new station at Witchduck Road and two stations in the Town Center area – one near Kellam Road and one at Constitution Drive. This is called the Locally Preferred Alternative.
- Adopted the below-listed CIP projects, including the light rail corridor shared-use pathway to provide opportunities for enhanced multi-modal mobility throughout the east-west corridors of the Newtown and Pembroke SGAs as well as nearby established neighborhoods.
- Adopted a budget that includes plans to extend light rail to Town Center, with plans to double the city's bus service, build a walking-biking trail alongside the light rail, and build over 20 new bus shelters.

Based on these actions, a Transit-Oriented Development (TOD) implementation strategy should be developed through a public process for an implementation focus on development and redevelopment areas within one-half mile of the planned light rail stations.

Programmed and Funded Capital Improvement Projects (CIPs)

- 1-107000 - Princess Anne High School Replacement. Originally built in 1954, the high school can no longer adequately house the required instructional programs, and the facility needs replacement.
- 2-025000 – Witchduck Road - Phase II. This project will provide a six-lane divided roadway on a 143-foot to 165-foot variable width right-of-way from I-264 to Virginia Beach Boulevard. The project will include improvements and modifications to Pennsylvania Avenue, Mac Street, Southern Boulevard, Cleveland Street, and Admiral Wright Road at Den Lane. Aesthetic improvements include 16-foot benches comprised of 8-foot wide concrete sidewalks and 8-foot wide brick pavers

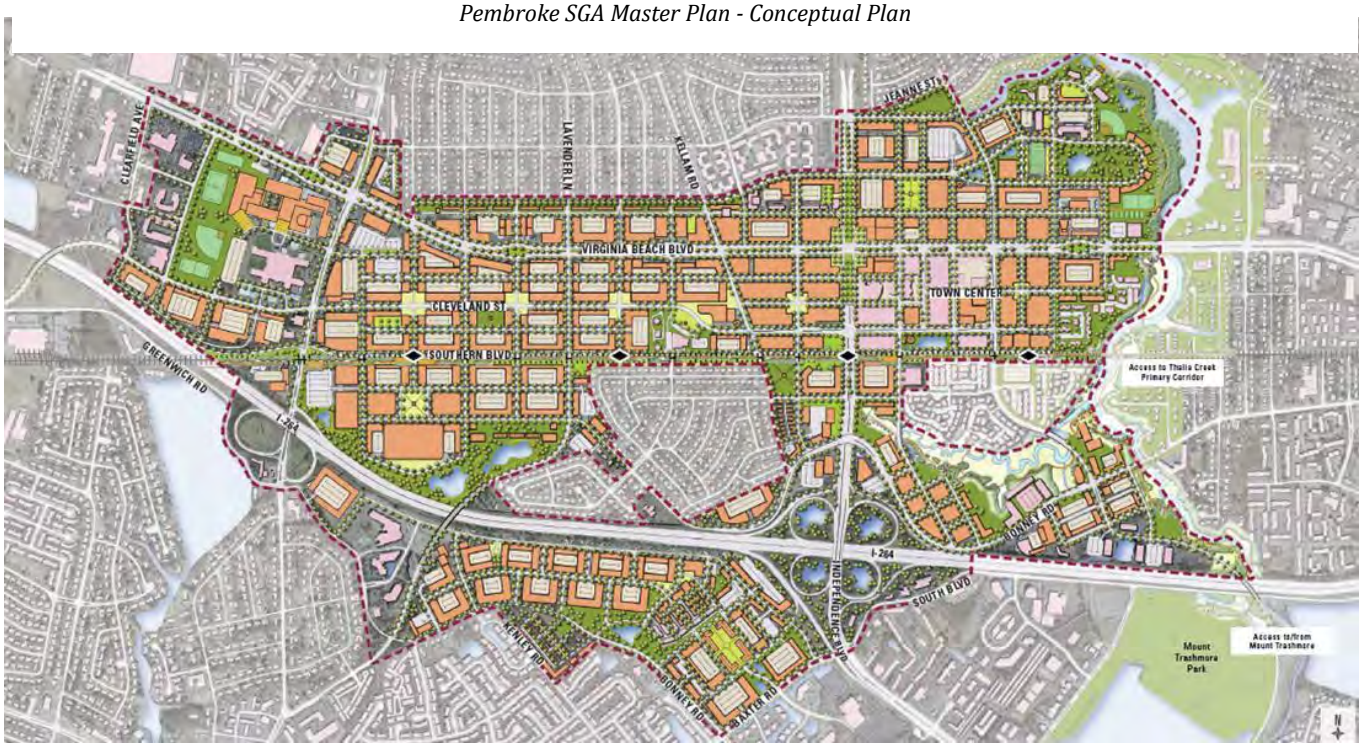
- 2—092000 – Virginia Beach Transit Extension Project. This is a design-build project to extend light rail fixed guideway transit, "The Tide", from its terminus at the Newtown Station/Norfolk-Virginia Beach City line, east to Town Center at Constitution Drive.
- 2-093000 – Buses for Virginia Beach Transit Extension. This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system. The Constitution Drive Light Rail Station will serve as a major transfer point for both bus transit, park and ride for motor vehicles and on-demand shared transportation (i.e. taxis, Uber, etc.) and pedestrians and bicyclists.
- 2-108000 – Light Rail Corridor Shared Use Pathway. This project will fund the design, construction, right-of-way acquisition and site furnishings required to create a shared-use pathway within and /or along the former Norfolk-Southern right-of-way in conjunction with the light rail extension project to provide additional modes of transportation.
- 2-401000 – Greenwich Rd Crossover & Cleveland St. Improvements. This project is part of the overall eastbound VDOT I-264 interstate improvement projects between I-64 and the Witchduck Rd. interchange. This project will be designed and constructed in three phases.
- 3-503000 – Housing Resource Center. This project is to construct an approximately 62,000 square foot Housing Resource Center that will provide shelter and services to homeless persons and those at risk of homelessness. It will include a central intake and assessment function that will be critical to achieving the goals of the Strategic Plan to End Homelessness.
- 4-079000 – Thalia Creek Greenway I. This project will fund the design and construction of the boardwalk and trail facilities outlined in the greenway corridor of the Thalia Creek Greenway Master Plan. This project is a unique initiative to develop an urban greenway that will provide access to natural open space and recreational activities in the Town Center area, while also providing an alternative transportation route.
- 4-522000 – Thalia Creek Greenway Trail Grant. A master plan for Thalia Creek greenway was completed in April 2007. Phase 1 of the greenway runs from Independence Boulevard around Town Center to Virginia Beach Boulevard with another leg running toward I-264. Phase 1 is divided into four sections 1A, 1B, 1C, and 1D. This project was selected by VDOT to receive Transportation Enhancements Program funds, June 2012. This project is for the construction of a portion of Phase 1A, approximately 1,200 linear feet of paved trail and raised boardwalk to connect from Independence Boulevard to the City-owned property at 4560 Bonney Road.
- 5-028000 – Witchduck Road Phase II Water Improvements. This project provides funds to improve existing water facilities along Witchduck Road from the Cleveland Street intersection to Virginia Beach Boulevard.
- 6-604000 – Witchduck Road Phase II Sewer. This project provides funding to improve existing sewer facilities along Witchduck Road from the I-264 intersection to Virginia Beach Boulevard.
- 9-083000 – Town Center Garage and Plaza Capital Maintenance. This project provides funding necessary for the equipment, capital maintenance, repairs, replacements, improvements, as well as planning, design, and engineering services for the five Town Center garages and the fountain plaza.
- 9-081000 – Strategic Growth Area Projects. This project will provide planning and design services, build or replace public infrastructure improvements, and acquire property as needed in order to support implementation of the eights SGAs.

AGENDA FOR FUTURE ACTION RECOMMENDATIONS: Pembroke SGA 4

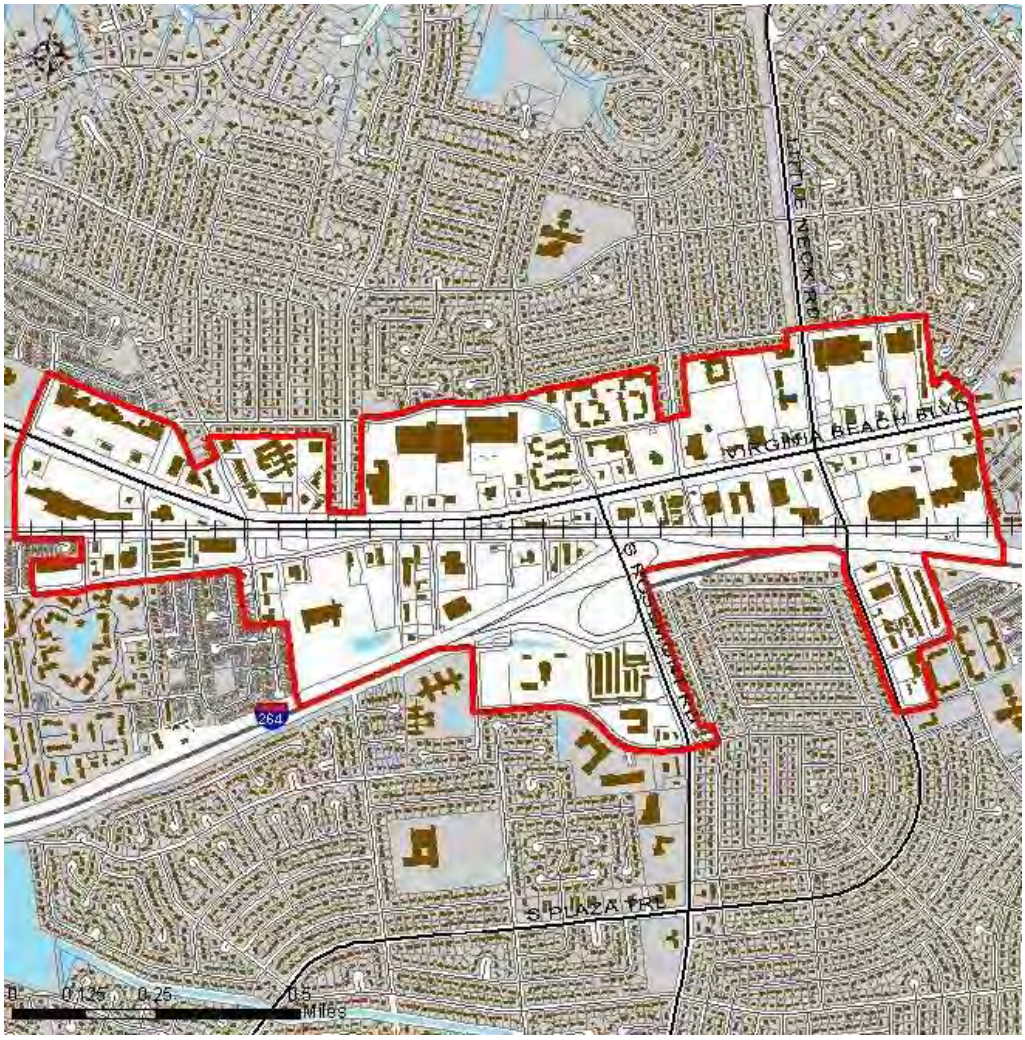
- Prepare a Master Transportation Plan for the Pembroke SGA using a public process that involves the adjacent neighborhoods.

For detailed *Pembroke SGA Master Plan* recommendations and information visit the online document library at www.vbgov.com/Planning.

Pembroke SGA Master Plan - Conceptual Plan



ROSEMONT STRATEGIC GROWTH AREA



DESCRIPTION

The Rosemont Strategic Growth Area is a 158-acre area located in the center of the city, east of the Pembroke SGA along the I-264/Virginia Beach Boulevard corridor. It is defined by a heavily used roadway system that is further complicated by the confluence of a railroad crossing and an interchange ramp system in proximity to one another. The land use of this area is characterized by suburban strip commercial and multifamily residential uses along Virginia Beach Boulevard and generally encompassed by established single family neighborhoods. However, like Newtown, Rosemont's future growth patterns are deemed to compliment the Pembroke land use.

The Rosemont SGA, which lies immediately east of Pembroke SGA and the Town Center is planned to be a transit-oriented residential community for those who desire to live near Town Center but not in it. Transit extension is necessary for this vision to be fully realized, but commercial property owners already see that potential and have begun to make improvements to attract new shoppers and enhance the shopping experience for existing customers. The Rosemont Strategic Growth Area Master Plan was adopted by the City Council on September 13, 2011 and is available in the online document library at www.vbgov.com/Planning.

VISION

The vision for the Rosemont SGA is a mixed-use development with a neighborhood center and improved pedestrian and trail facilities, with a street and block structure created to accommodate development and mobility. The Rosemont SGA will be a leading example of sustainable development practices, integrating high quality well designed workforce housing with guidelines and standards for land use, streets and open spaces.

Rosemont SGA - Neighborhood Center "Village Green"

SGA DESIGN PRINCIPLES

- Transition from strip commercial uses to mixed-use, mixed-income development that emphasizes townhouses and multi-family residential
- Create a new neighborhood center for Rosemont
- Improve pedestrian and trail facilities to connect neighborhoods to future transit and neighborhood centers
- Create a new street and block structure to accommodate development and improve mobility
- Require sustainable development practices
- Develop a set of design guidelines and standards for development of proper land use, streets, open spaces, and stormwater management
- Integrate well designed and high quality workforce housing into mixed-use development

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Rosemont SGA Master Plan*:

- Create an implementable series of private and public projects that can be packaged together to transform, over time, the heart of the city.
- Install district directional signs on Expressway and other major roads leading into the panning area. Install signs or community logo in strategic entry locations in order to develop a distinct sense of arrival to the district.
- Design to a "transit ready" framework that permits adequate scale and density, coupled with successive phasing of public investment to unlock a corresponding return on investment.
- Promote redevelopment through building the Sentara Way fly-over and other new connections within the SGA, supporting potential development, and improvements along South Plaza Trail.
- No industrial uses are recommended for this area.
- Introduce the residential neighborhoods south of Virginia Beach Boulevard by realigning Bonney Road, creating more regular development blocks to allow for higher density development, organized around parking garages and liner buildings.
- Establish criteria to humanize Virginia Beach Boulevard. Along the boulevard will be the new development of a village core, with surrounding lower-density residential neighborhoods to support the commercial uses and transit options that are being introduced.

PLAN IMPLEMENTATION STRATEGIES

With improved connectivity and mobility, the Rosemont SGA will transition from an auto-oriented retail strip to a mixed-use transit-oriented neighborhood center at higher densities. Market potential created by the introduction of transit and human-scaling of infrastructure suggests the idea of commercial development to serve the needs of a growing population, and the introduction of multi-family housing within easy walking distance to transit and neighborhood amenities.

Recommended Action Plan

- Update zoning regulations based on the SGA plan recommendations.
- Develop a comprehensive stormwater management strategy.
- Develop a comprehensive open space/park policy strategy.
- Create a set of design standards for arterial and local streets within the SGA.
- Sentara Way Fly Over creates a secondary street and pedestrian network off of Rosemont and Virginia Beach Boulevard connecting Sentara Way south of I-264 to just west of Butternut Lane.
- South Plaza Trail north-south connection under I-264 will align with the rest of the Trail as it continues southbound. Discourages non-local traffic.
- Bonney Road Realignment is an incremental approach to realign Bonney Road to create full development sites between Virginia Beach Boulevard and Bonney Road.
- Rosemont Road Widening widens Rosemont Road from four to six lanes and incorporates sidewalks and on-street bike lanes.
- Virginia Beach Boulevard vision removes the outer lanes to widen for a planting strip and provides a dedicated bike lane.
- Palace Green Pedestrian Bridge
- East-West Trail along the transit corridor
- Thalia Station development
- Incorporate new connections to expand the existing Bikeways and Trail Network.

Future Rosemont Transit Station concept

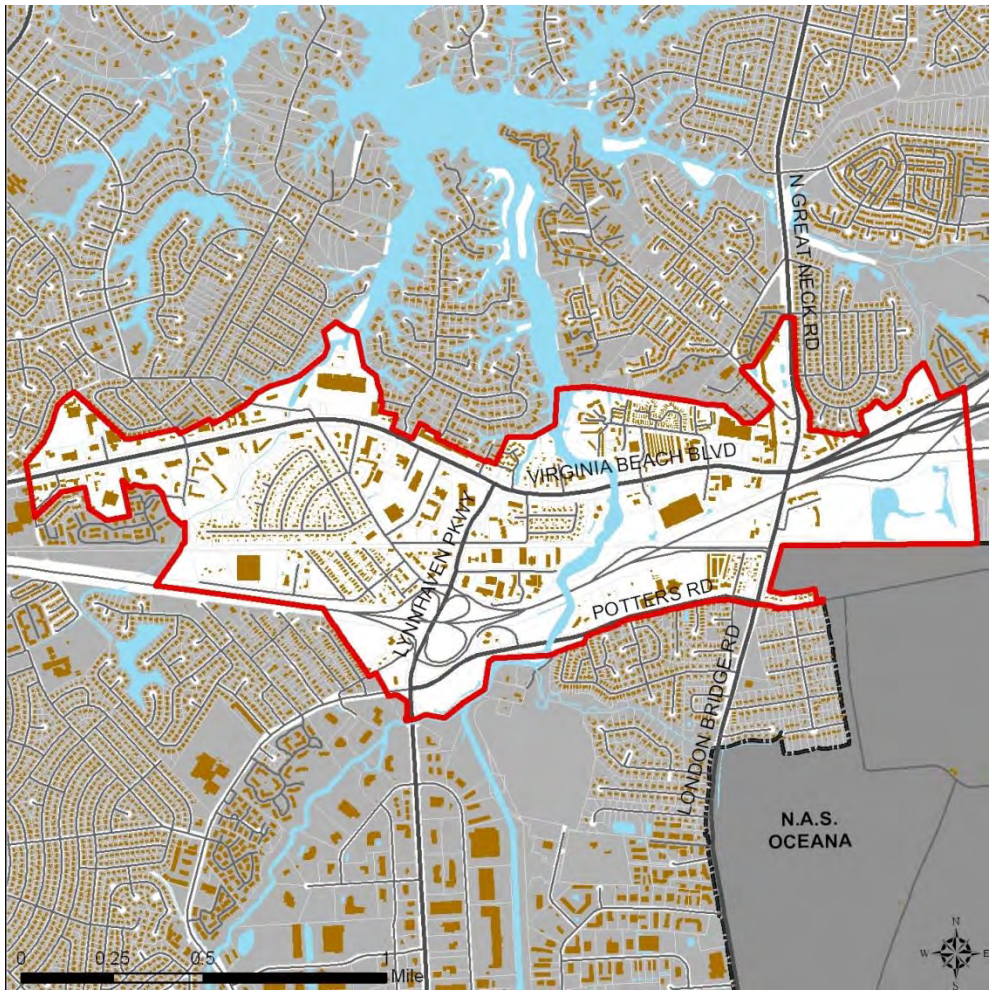
Programmed and Funded Capital Improvement Projects (CIPs)

- 2-093000 – Buses for Virginia Beach Transit Extension. This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system.
- 9-081000 – Strategic Growth Area Projects. This project will provide planning and design services, build or replace public infrastructure improvements, and acquire property as needed in order to support implementation of the eight SGAs.

For detailed *Rosemont SGA Master Plan* recommendations and information visit the online document library at www.vbgov.com/Planning.

Rosemont SGA Master Plan - Conceptual Plan

LYNNHAVEN STRATEGIC GROWTH AREA



DESCRIPTION

The Lynnhaven Strategic Growth Area takes its name and heritage from the Lynnhaven River system that is a major presence throughout. It is generally bound by the Rosemont Strategic Growth Area to the west, the Hilltop Strategic Growth Area to the east, and NAS Oceana to the southeast. The entire area is heavily impacted by AICUZ restrictions associated with flight patterns at NAS Oceana, including noise zones and two accident potential zones. The area is characterized by a good contrast in type, intensity, and quality of land uses. This gateway to the Great Neck peninsula exhibits an excessive number of nonconforming signs, overhead utilities, and roadway access points. Much of this is due to the area being one of the oldest commercial areas in the City, and its retrofit with a modern roadway system has improved function more than appearance.

This SGA is attractive to businesses seeking easy access to transportation and serving the vast residential areas surrounding it. It offers an I-264 interchange, including new on-off ramps to London Bridge Road, three major crossing arterial connections, and a potential future transit stop.
The Lynnhaven SGA has the potential to serve the city as an innovative industrial and service industry zone, while maintaining existing affordable housing for first-time homebuyers and seniors in the established neighborhoods of Eureka Park and Pinewood Gardens. Rediscovering the waterways that meander through the Lynnhaven SGA by orienting our buildings toward them and creating more visual

and public water access points through an extensive public trail system is an underlying design principle. The *Lynnhaven Strategic Growth Area Master Plan* was adopted by the City Council on April 24, 2012 and is available in the online document library at www.vbgov.com/Planning.

VISION

The vision of the Lynnhaven SGA is a series of mixed-use and flexible developments along with targeted public infrastructure improvements. The under-performing commercial properties will have the opportunity to transform themselves into higher intensity uses to, in some cases, take advantage of the potential of transit, and, in other cases, to preserve and provide access to the Lynnhaven River. At the center of the redevelopment may be a new transit station that can provide park-and-ride, connection to nearby office uses, and transfer service to Lynnhaven Mall. The Lynnhaven SGA seeks to capitalize on existing adjacent assets such as the Lynnhaven River/London Bridge Creek system and healthy neighborhoods.

Rail-Trail concept overlooking London Bridge Creek - Lynnhaven SGA

SGA DESIGN PRINCIPLES

- Enable a clear and easy-to-access open space and recreation network
- Capitalize on the value of the water and marshlands
- Meet the Chesapeake Bay Act mandates to protect and restore the Lynnhaven River and its tributaries
- Locate compatible uses that are consistent with the APZ-1/Clear Zone Master Plan, APZ Zones, and AICUZ restrictions
- Strengthen existing neighborhoods through providing community services and convenient retail
- Improve multi-modal connections from the adjacent neighborhoods
- Connect future transit to employment, recreational destination, and park-and-ride
- Enable flexible development sites and building types to respond to ever-changing market needs and development programs
- Coordinate transportation planning and development

- Build on the existing good balance between homes, jobs, and services

PLAN RECOMMENDATIONS

The following summarizes the general recommendations of the *Lynnhaven SGA Master Plan*, which calls for six new distinct areas, each with its own quality and character of development:

- Non-Residential Mixed-Use Development Area located between Virginia Beach Boulevard and interstate 264. This area is a prime location for a range of non-residential uses. New development blocks created to accommodate new office development in an urban, pedestrian friendly neighborhood center with supporting retail. This district is well positioned as a transit-ready development.
- Innovation Zone Development Area provides opportunities for small start-up businesses and technology innovation in two areas in this SGA. The first zone along Dean Drive is a small complex of buildings that can accommodate a flexible range of working spaces and can house a variety of existing uses, to provide development opportunities for small start-up businesses and technology innovation.
- Riverfront Development Area showcases the Lynnhaven River/London Bridge Creek system as a major natural amenity that can create addresses for office space with spectacular views and allow commercial uses to capitalize on outdoor space. Turning development sites towards the river and the open space allows existing sites to better capitalize on the amenity, create new development opportunities, and organize the way redevelopment evolves.
- Residential Development Area utilizes small pockets of existing residential zoning that emerged as potential redevelopment sites with equal or lesser residential density than what currently exists on site. This new residential development may be lined with a mix of town houses and smaller multi-family buildings at a scale appropriate to adjacent residential.
- Lifestyle Center Development Area orients buildings to face along a secondary road network and central green space to better provide for a safe, accessible retail address. The central green space is the ideal place for passive recreation, outdoor café seating, and for visitors to congregate while shopping.
- Highway-Oriented Retail Development Area orients small retail buildings or office buildings with parking in the rear of lots along Virginia Beach Boulevard to provide a desirable scaled street frontage, while remaining easily accessible and visible to traffic along the boulevard.

Transit-oriented non-residential, mixed use district concept for Lynnhaven SGA

PLAN IMPLEMENTATION STRATEGIES

The Lynnhaven SGA Plan recognizes that, with public improvements in transit, local street networks, and open space, private property owners have an increased range of opportunities for development and utilization of their land to create new mixed-use districts.

Recommended Action Plan

- Update zoning regulations based on the SGA plan recommendations.
- Develop a comprehensive stormwater management strategy.
- Develop a comprehensive open space/park policy strategy.
- Develop an implementation strategy for access improvements and open space restoration along the Lynnhaven River and its tributaries.
- Implement the following key infrastructure improvements: Lynnhaven Parkway/I-264 Interchange Improvements; Norfolk Southern Trail; Potter's Road Bridge Restoration; Wesley Drive; Redevelopment; Transit Station and Park & Ride Lot; Virginia Beach Boulevard Improvements; North Lynnhaven Road Improvements; Southern Boulevard Improvements; London Bridge Improvements; Great Neck Road Improvements; Potters Road Improvements; Dean Drive Improvements; Lynnhaven Parkway Twin Bridges; and Virginia Beach Boulevard Bridge.
- Prepare a corridor plan for Virginia Beach Boulevard from Newtown Road to First Colonial Road

Programmed and Funded Capital Improvement Projects (CIPs)

- 2-093000 – Buses for Virginia Beach Transit Extension – This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system.
- 9-081000 – Strategic Growth Area Projects – This project will provide planning and design services, build or replace public infrastructure improvements, and acquire property as needed in order to support implementation of the eight SGAs.

For detailed Lynnhaven SGA Master Plan recommendations and information visit the online document library at www.vbgov.com/Planning.

Lynnhaven SGA Master Plan - Conceptual Plan

HILLTOP STRATEGIC GROWTH AREA

DESCRIPTION

Hilltop Strategic Growth Area (SGA) is home to a wealth of local businesses with a variety of retail, restaurant, office, health, and recreational uses. The SGA is generally bound by a diverse mix of retail located north of Laskin Road, the Lynnhaven Strategic Growth Area to the west, and Linkhorn Bay to the east, and Potters Road to the south.

Although this area is located within a high noise zone, it is a good candidate for redevelopment and reinvestment because of its existing commercial strength and its proximity to the Oceanfront Resort Area, NAS Oceana, and I-264 interchange. The area south of I-264 is subject to greater AICUZ restrictions due to the presence of accident potential zones and the clear zone.

The long-range vision for Hilltop SGA, which is already a regional retail destination featuring home-grown restaurants, a plethora of grocery stores, and a variety of shops, builds on the area's strengths, yet introduces more greenspace. Doing so through redevelopment opportunities can address stormwater management needs and, in turn, create a healthier environment and shopping/dining experience that welcomes more people out of their cars and outdoors as they move from place to place within the SGA. Industrial and commercial uses compatible with being in a military aircraft high noise

zone have been relocated into this SGA through the City's YesOceana Program at its southern end. The historic neighborhood of Oceana Gardens, which has a concentration of early 20th Century Sears Kit Homes, is evolving with a new residential lot and density pattern that is more compatible with being located in a military aircraft Accident Potential Zone and high noise zone, while still trying to retain its character. The Hilltop Strategic Growth Area Master Plan was adopted by the City Council on August 28, 2012 and is available in the online document library at www.vbgov.com/Planning.

VISION

The vision for the Hilltop SGA expands the develop opportunities of many of the local businesses by transforming land areas devoted to parking and under-utilized commercial property into a mix of retail and office opportunities. Targeted public infrastructure improvements and enhanced transit service will help evolve the Hilltop SGA as a convenient, regional retail destination that's within close proximity to the beach.

Hilltop Shopping Center infill development concept

SGA DESIGN PRINCIPLES

- Build a network of streets to improve traffic flow
- Provide trails and sidewalks for pedestrians and cyclists
- Provide a mix of retail, restaurants, and office uses
- Build on existing healthcare, food and adjacent recreational assets
- Match quality of local businesses with an equally memorable built setting
- Provide additional transit connections to Hilltop
- Comply with AICUZ land use zoning requirements
- Reduce land areas devoted to parking and replace with more productive uses
- Revisit and update old plans for roads and infrastructure
- Incorporate an Urban Tree Canopy Program

PLAN RECOMMENDATIONS

The *Hilltop SGA Master Plan* represents a unique opportunity to enhance an established retail market area with a distinct identity within the City. With improved streets will be sidewalks, crosswalks, landscaping and lighting that will transform Hilltop into a walkable district. Over time, existing retail buildings will be replaced with new retail buildings built facing the new streets. The suburban pattern of highways lined with parking lots and strip centers will gradually give way to a new pedestrian

friendly mixed-use district. The following summarizes the key recommendations of the *Hilltop SGA Master Plan*:

- Incorporate an Urban Tree Canopy Program within the Hilltop SGA to create a pedestrian environment and aid stormwater management.
- Define a clear hierarchy of streets to establish a structure of development blocks and reconnect places. Major street improvements should support urban, walkable environments that are positioned to service growth.
- Build upon the existing natural resources to expand access to public open space through an interconnected system of parks and trails.
- Evaluate repositioning the proposed transit station to the core of the Hilltop SGA with street and trail improvements to promote transit-oriented economic development.
- Encourage redevelopment of obsolete commercial structures with new buildings placed according to new urban planning standards for the district.

PLAN IMPLEMENTATION STRATEGIES

The *Hilltop SGA Master Plan* transitions under-utilized commercial property into a transit-ready retail and office mixed-use urban environment by building a network of streets to improve traffic flow, trails and sidewalks for pedestrians and cyclists, and matching the quality of local business with an equally memorable setting.

Recommended Action Plan

- Update zoning regulations based on the SGA Plan recommendations.
- Consider tools for redevelopment such as those identified in the "Guidelines for Evaluation of Investment Partnerships for Economic Development" Policy. For information about this policy visit www.vbgov.com/government/departments/sga/Pages/default.aspx.
- Develop a comprehensive stormwater management strategy.
- Update the Sanitary Sewer Master Plan based on projected future densities to adequately serve the redeveloped Hilltop SGA.
- Develop a district parking strategy for Hilltop and introduce structured parking through public/private ventures in order to increase open space and tree canopy throughout SGA.
- Build upon existing natural resources by creating a new parks and open space network
- Implement the following key infrastructure improvements to establish a structure of development blocks and reconnect places: Laskin Road Redesign and Implementation to eliminate frontage roads and improve traffic flow and safety; First Colonial Road – six through lanes with consolidated turn lane and median with on street bike lanes; Virginia Beach Boulevard - redesign to an urban pedestrian friendly environment; Republic Road – incorporate pedestrian accommodations and on-street parking; Nevan Road – four through lanes with on-street bike lanes and improved pedestrian accommodations; and Donna Drive – two through lanes with on-street bike lanes and improved pedestrian accommodations.
- Introduce a transit station and transit park in Hilltop as part of a new citywide transit system and open space network.
- District streetscaping improvements to include landscaping, trees, lighting, trails, sidewalks, crosswalks, and way finding signage

Improved Laskin Road - First Colonial Road intersection with transit station concept

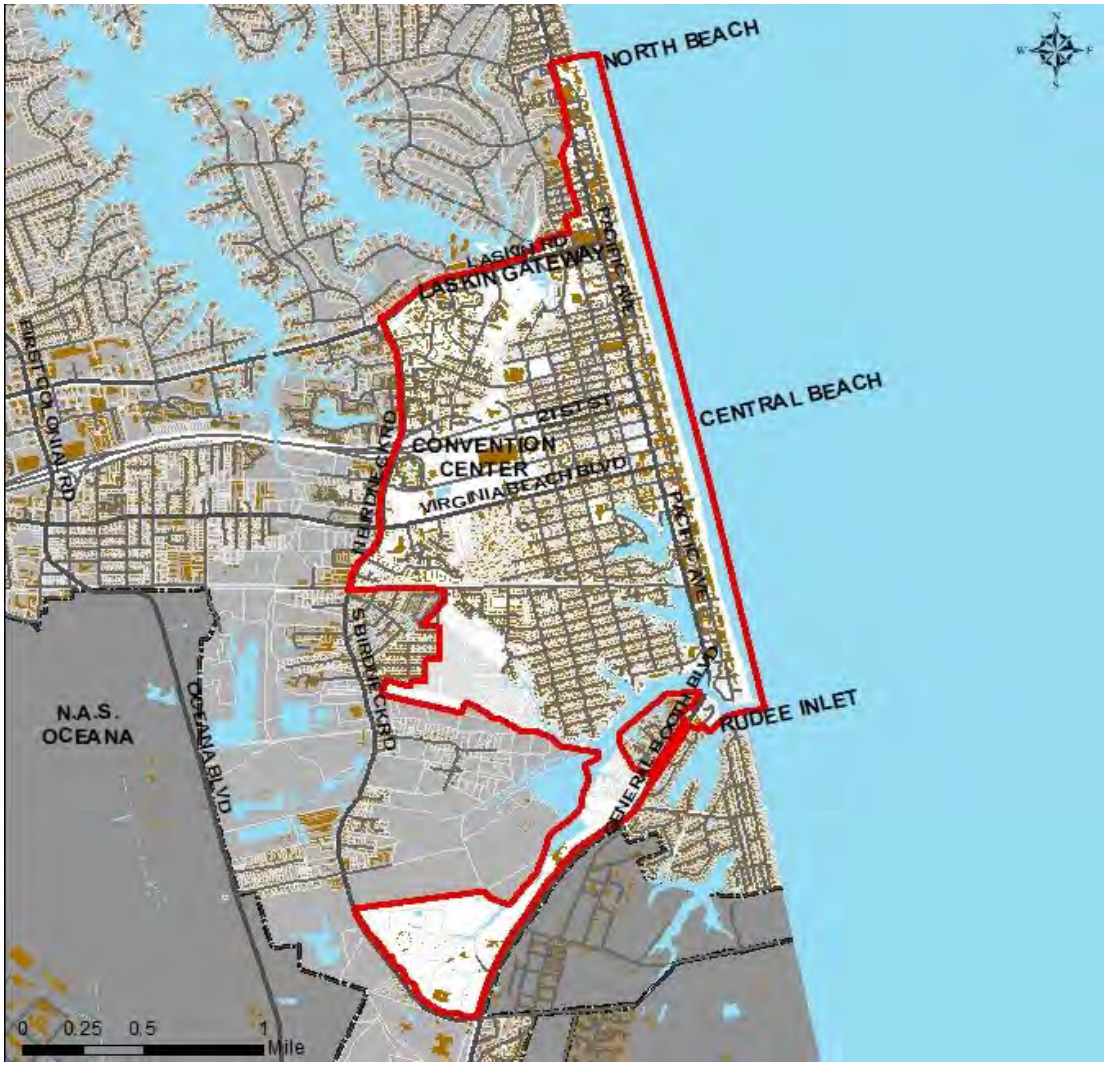
Programmed and Funded Capital Improvement Projects (CIPS)

- 2-093000 – Buses for Virginia Beach Transit Extension – This project funds 12 transit buses to support enhanced public transportation throughout the City in addition to feeding "The Tide" light rail system.
- 9-081000 – Strategic Growth Area Projects – This project will provide planning and design services, build or replace public infrastructure improvements, and acquire property as needed in order to support implementation of the eight SGAs.

For detailed *Hilltop SGA Master Plan* recommendations and information visit the online document library at www.vbgov.com/Planning.

Hilltop SGA Master Plan - Conceptual Plan

RESORT STRATEGIC GROWTH AREA



DESCRIPTION

The Resort area is generally bound by 42nd Street, the Atlantic Ocean, Rudee Inlet, General Booth Boulevard to the Virginia Aquarium and Owl's Creek Area, and Birdneck Road. Revitalization efforts have transformed the Resort area into a major activity center, with strengthened neighborhoods, and increased economic growth.

The Resort Area SGA has received much capital investment in streetscape and utilities improvements, including Rudee Walk, Pacific Avenue, and a new public parking structure on 25th St. An innovative, flexible Form-Based Code is enabling new private development that provides a variety of housing types and a greater range of year-round retail and entertainment for both residents and visitors alike. An arts community has emerged in the Resort's Central Beach District, called the Vibe Creative District and, as a result, more opportunities and choices are enabled in creative expression. The *Resort Area Strategic Action Plan* 2030 was adopted by the City Council on June 2, 2020 and is available in the online document library at www.vbgov.com/Planning.

VISION

With a vision supported by the community, the Virginia Beach *Resort Area Strategic Action Plan (RASAP)* 2030 identifies the potential for four distinct, yet complementary, districts/corridors at Laskin Gateway, Central Beach, Marina, and Oceanfront (Atlantic and Pacific Avenues). The plan is a vision for enhancing the area by extending the energy at the beach into these areas. This plan develops synergies between the cultural and commercial life, the recreational and natural life, and an overall focus on drawing residents and visitors into the area.

2030 VISION

- Create a unique sense of arrival
- Provide safe and comfortable places for residents and visitors
- Retain the feel of an oceanside resort with a sense of community
- Preserve the feeling of Virginia Beach identity, culture, and history through art and design
- Provide a simultaneous sense of calm and renewed energy for residents and visitors
- Address sea level rise and coastal resilience
- Rehabilitate and preserve historic structures and properties

Future 17th Street Corridor Concept

PLAN RECOMMENDATIONS

The Resort Area Strategic Plan 2030 boundary includes multiple sub-districts. Each of these districts has its own distinct character which, through additional placemaking efforts, will be a key to a diverse resort area that has something for everyone to enjoy year-round.

- *Central Beach* encompasses the 21st Street Gateway, the ViBe Creative District, the Virginia Museum of Contemporary Art (MOCA) and 19th Street, which is planned to be a key multimodal corridor.

- *Marina* showcases the working waterfront. There is great opportunity for mixed-use redevelopment that includes hotels, retail, restaurants, business and residential uses that are compatible with the adjacent Seatack and Shadowlawn neighborhoods. All development should be connected with a public walk that offers recreational connections to Rudee Inlet and is integrated with future flood gates and barriers.

- *Laskin Gateway* is a key connection point for North End businesses and neighborhoods and the Hilltop commercial area to the west. Linkhorn Bay is a beautiful tidal backdrop to this gateway.

- *Oceanfront Corridor* includes Atlantic and Pacific avenues. This is the main north-south connector in the Resort Area and is where the majority of visitors stay and gather. This corridor welcomes the millions of people to Virginia Beach and must be a beautiful and inviting place for pedestrians to shop and dine, as well as carry a significant amount of traffic. A mobility plan and streetscape improvements are needed to accomplish these goals.

PLAN IMPLEMENTATION STRATEGIES

- Recognize the all elements of the Resort Area are connected and should be connected
- Provide the highest quality spaces and experiences for locals and visitor to achieve a "Year Round Resort"
- Create great districts with distinctive character through placemaking
- Comprehensively address mobility
- Promote environmental stewardship
- Develop passive green/open spaces that connect inland neighborhoods to the oceanfront
- Improve existing connector parks by adding new amenities such as event and performance spaces, bathrooms and day-use showers
- Establish a committee to oversee the design of proposed gateways
- Preserve historic properties and the history of the Resort area through adaptive reuse projects
- New residential should be located west of Atlantic Avenue

Recommended Action Plan

- Adopt the best practices of a Central Management Entity
- Develop a comprehensive Mobility Plan
- Design and implement Streetscape Improvements
- Enhance and develop connected Green/Open Spaces
- Design and construct a Gateway at 21st Street that provides a sense of welcome and arrival
- Support Impact Projects that benefit the Resort Area and the City of Virginia Beach
- Support Residential and Mixed-use Developments in the Resort Area

Programmed and Funded Capital Improvement Projects (CIP's)

- 2-138000 – Atlantic Avenue reconfiguration. This project will reconfigure Atlantic Avenue from 40th Street to Pacific Avenue, removing the Atlantic Avenue/Pacific Avenue intersection and providing a cul-de-sac of Atlantic Avenue at the Cavalier property. The project includes new left turn lanes and two new traffic signals.
- 2-154000 – General Booth Boulevard/Camp Pendleton Intersection Improvements.
- 2-156000 – Laskin Road Phase 1-B (VDOT). This project is for construction of an eight-lane divided highway, including bike path and sidewalk, from Republic to Winwood Drive, and a six-lane divided highway from Winwood Drive to South Oriole Road.
- 2-165000 – Laskin Road Phase II. This project is for construction of a six-lane divided highway with a bikeway from the eastern terminus of Laskin Road Phase I (Oriole Drive) to the 30th/31st Street split. A transportation corridor analysis is included along with undergrounding of utilities.
- 3-028000 – Aquarium Marsh Pavilion Enhancements. This project will enhance the Aquarium Marsh Pavilion and include the creation of exhibit play area for children, renovation of the existing exhibit areas, modifications to the trail to the outdoor theatre, a more welcoming entrance, landscape enhancements, visitor amenities such as the small café, and refurbishment of the Pavilion's gif store, support areas and theatre.
- 3-074000 – Aquarium Marsh Pavilion Phase II (Veterinary Care Center). This project will support the existing Virginia Aquarium by adding an entirely new building, a Vet Clinic, to the side of the existing Marsh Pavilion.
- 3-161000 – Aquarium Seal Exhibit. This project funds the studies related to architectural and engineering needs of the Virginia Aquarium's seal exhibit and improvements to the front entrance.
- 3-162000 – Veterans Memorial Sustainment. This project will provide funding necessary to address identified and discussed maintenance issues and deficiencies.
- 3-171000 – Virginia Aquarium Enhancement Study. This project funds the study related to the architectural and engineering needs of the Virginia Aquarium Imax theatre.

- 3-518000 – Convention Center Capital Maintenance. This project provides funding for capital replacements of vital infrastructure for the Virginia Beach Convention Center.
- 3-519000 – Chesapeake Bay Aquarium Renovation. This project is to refurbish, repair, and/or replace the aquarium systems that make up the Chesapeake Bay aquarium.
- 3-610000 – Police Oceanfront cameras. The Virginia Beach Police Department is seeking to replace and expand the security camera system at the oceanfront and increase the number of cameras and video management capabilities provided.
- 4-041000 – Owl Creek Municipal Tennis Center Repairs and Renovations. This project funds capital equipment replacements for the Owl Creek Tennis Center and infrastructure repairs and replacements as required.
- 5-101000 – ViBe District Water Improvements. This project provides funding for the replacement of aging water lines within the ViBe District on 17th, 18th, and 19th Streets between Cypress Avenue and Pacific Avenue.
- 5-207000 – Laskin Road Water Improvements Phase I- This project provides funding to improve the existing water distribution facilities on Laskin Road from Republic Road to Oriole Drive, and along portions of First Colonial Road.
- 5-708000 – Resort Area Neighborhood Revitalization. This project provides funding for the design and construction of water mains within the oceanfront resort neighborhoods of Old Beach, Lakewood, and Shadowlawn.
- 6-019000 – Resort Area Neighborhood Revitalization. This project provides funding for the design and construction of gravity sewer within the oceanfront resort area neighborhoods of Old Beach, Lakewood, and Shadowlawn.
- 6-075000 – Laskin Road Sewer Improvements Phase I (VDOT). This project provides funding to improve existing sewer facilities on Laskin Road, from Republic Road to Oriole Drive, and along portions of First Colonial Road.
- 6-101000 – ViBe District Sewer Improvements. This project provides funding for the replacement of aging sewer lines within the ViBe District on 17th, 18th and 19th Streets between Cypress Avenue and Pacific Avenue.
- 7-005000 – North Lake Holly Watershed – This project will provide for the study, design, and construction of an adequate drainage system to serve the Beach Borough neighborhoods which generally lie with the area bounded by Virginia Beach Boulevard, Parks Avenue, Norfolk Avenue, and Pacific Avenue.
- 7-016000 – South Lake Holly Watershed – This project will provide for the study, design, and construction on an adequate drainage system to serve the Beach Borough neighborhoods, which generally lie with the area bounded by Norfolk Avenue, Rudee Avenue, Pacific Avenue, and Rudee Inlet.
- 7-041000 – Central Resort District Drainage Improvements. This project will provide for the study design, and construction of storm drain improvements to address drainage in adequacies in the Northwest Dome Sub watershed, the Southeast Dome Sub watershed, the Virginia Beach Convention Center Sub watershed, and the 2nd Precinct Sub watershed.
- 7-054000 – Lynnhaven River Watershed II. This project is for the implementation of water quality improvement projects and programs within the Lynnhaven River Watershed.
- 7-059000 – Lynnhaven River Basin Ecosystem Restoration Project. This project is intended to restore approximately 38 acres of wetlands, 94 acres of submerged aquatic vegetation, and 31 acres of reef habitat within the Lynnhaven River.
- 7-064000 – Central Resort District – 24th Street Culvert. This project is for property acquisition and construction of stormwater and roadway improvements at three existing culverts.
- 7-072000 – Lynnhaven River Watershed Stormwater Projects. This project will identify and prioritize smaller stormwater management projects in the Lynnhaven River Watershed.
- 9-039000 – 17th Street Improvements II. This project provides funding to improve 17th Street from Cypress Avenue to Birdneck Road and provides a rehabilitated streetscape through the

undergrounding of overhead utilities, traffic safety improvements, better bicycle and pedestrian accommodations, utility and stormwater upgrades, and aesthetic improvements such as street trees and pedestrian lights.

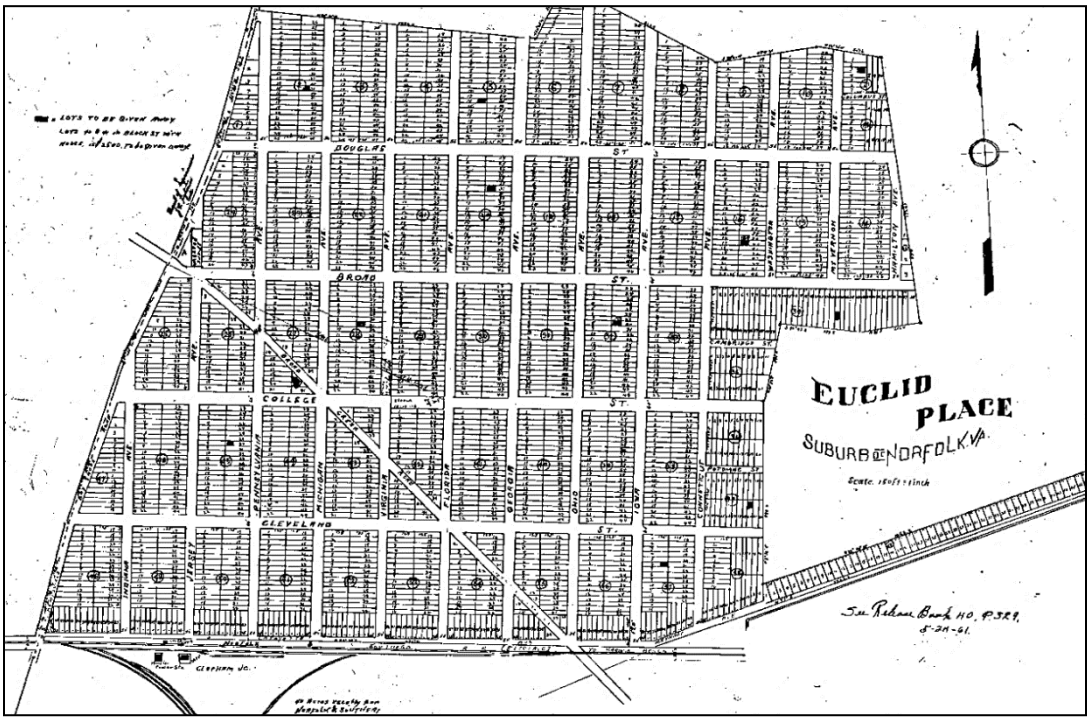
- 9-045000 – Central Beach and Convention Districts Parking. This project provides funding for public parking spaces in the Convention Center District and the Central Beach District between 14th and 23rd Streets and Atlantic Avenue and Birdneck Road.
- 9-050000 – Dome Site Streetscapes. This project will fund streetscape improvements to support the development of the former Dome site into a mixed-use, high density development including space for residence, offices, retail, restaurants, a surf park, an entertainment venue, and parking.
- 9-053000 – Dome Site Entertainment Venue. This project will fund the construction of an entertainment venue as part of the redevelopment of the former Dome site.
- 9-056000 – Oceanfront Parking Facilities Capital Maintenance/Development II. This project provides funding necessary for the acquisition, development, equipment, capital maintenance, repairs, rehabilitation, improvements, design, planning and engineering services for the Oceanfront, Resort, and Sandbridge parking garages and parking lots.
- 9-063000 – 17th St. Improvements II. This provides funding to improve 17th Street from Cypress Avenue to Birdneck Road and provides a rehabilitated streetscape through the undergrounding of overhead utilities, traffic safety improvements, better bicycle and pedestrian accommodations, utility and stormwater upgrades, and aesthetic improvements.
- 9-065000 – Dome Site Parking. This project provides funding for public parking spaces at the former Dome Site.
- 9-069000 – 19th Street Corridor Improvements. This project provides ongoing funding to reinvest in various high impact capital projects at the oceanfront.
- 9-100000 19th Street Infrastructure Improvements. This project provides for streetscape improvements including wider sidewalks, street trees, and undergrounding of overhead utilities; a new street section; and associated stormwater and traffic improvements.

1.3 - SUBURBAN AREA

INTRODUCTION

Much of the area located north of the Green Line possesses a suburban land use pattern, meaning the area primarily consists of low- to medium-density residential land use with commercial retail, office, and service uses interspersed throughout the area. This land use pattern is the result of more than a century of the development of communities created by subdividing all or portions of the farms that defined Princess Anne County (now the City of Virginia Beach) since the 17th century. The earliest subdivisions were established in the late-19th and early-20th centuries, located adjacent to the railroad line that connected the City of Norfolk to the Town of Virginia Beach. Since the automobile was largely a novelty during these years, movement outside of the urban core cities of Norfolk and Portsmouth was either via the railroad or a poorly maintained roadway system using horse and wagon. The railroad line offered developers the opportunity to establish communities outside the urban core of Norfolk for those who desired to choose a lifestyle less intense than that of Norfolk. This trend of creating communities outside the urban core cities occurred not only here, but throughout the United States, and England as well. Eventually, the area outside the core urban cities was designated as being 'suburban.'

Vestiges of the early suburban communities in Virginia Beach can be seen in the existing street layout of Pembroke, south of Virginia Beach Boulevard, which were established as Euclid Place (1910) and Sunny Brook (1916). Other early suburban communities located on the railroad line still partially exist as Thalia Village (1893), Rosemont (1902), Lynnhaven (1895), and Oceana Gardens (1906). The same type of early suburban development occurred along the railroad line between Norfolk and Cape Henry where suburban subdivisions such as Ocean Park (1916) were established.
The development of the city's Suburban Area began in earnest during the 1950s after the Second



1910 Subdivision Plan for Euclid Place

World War. It was this initial phase of suburban development that placed the automobile at the core of the design of the Suburban Area. Instead of the small rectangular lots of the early part of the 20th century, lots were of various shapes, larger, and served by a system of local, collector, and arterial roadways. Development slowly increased during the 1960s, followed by exponential increases during the 1970s and 1980s, during which Virginia Beach was one of the fastest growing cities in the United States.

Characteristic Suburban Area Land Use Pattern

Movement through the area and to destinations outside the area is heavily dependent on the automobile, which in turn is dependent on a network of roadways that has traditionally been designed to move automobiles from one place to another in the fastest and safest manner. The Master Transportation Plan (Chapter 2, Section 2.1) describes this transportation system in detail, explains the issues we face, and provides recommended policies and capital improvements to create a system that, over time, will reduce our dependence on the automobile.

The need to diversify the means by which we move through the Suburban Area and, thereby, reduce our dependence on the automobile, combined with a reduction in the number of acres of land available for new development, has increased the importance of our Strategic Growth Areas, as explained in Section 1.2 – Urban Areas. Accordingly, portions of the City's Suburban Area are undergoing a transformation to an urban land use pattern, guided by the master plans for eight Strategic Growth Areas as well as the policies and guiding principles for the City's Urban Areas, as presented in Section 1.2.

The guiding planning principles for the Suburban Area recognize this transformation as part of a maturing city, offering new types of land use and lifestyle choices. These guiding principles also emphasize the importance of the 'edges' or boundaries where the land use intensity and density of the Suburban Area transitions to that of the Urban Areas. Equally, the guiding principles for the Suburban Area recognize the city's original rural land use pattern and lifestyle by ensuring that development along the southern edge of the Suburban Area has a lower density and intensity and possesses site and

building designs that ensure an appropriate change from the Suburban Area to Princess Anne Commons and the Transition Area, and ultimately, to the Rural Area. The guiding principles presented below work in concert with this Plan's guiding principles for the Urban and Rural Areas, as well as Princess Anne Commons and the Transition Area, to ensure that the diversification in land use and lifestyle choices is acknowledged, while also ensuring the Suburban Area continues to be an area of stability, sustainability, and quality.

GUIDING PRINCIPLES FOR THE SUBURBAN AREA

- Create and maintain neighborhood stability and sustainability – create "Great Neighborhoods."
- Protect and enhance natural open spaces and places and buildings of cultural and historic significance and integrate into development as appropriate.
- Create and maintain a transportation system that provides connectivity and enhances mobility regardless of transportation mode.

GUIDING PLANNING PRINCIPLES

Three guiding planning principles have been established to guard against possible threats to the stability of Suburban Area and to provide a framework for neighborhoods and places that are increasingly vibrant and distinctive. This is accomplished by providing planning guidance that ensures appropriate and sustainable use of land, the protection of natural and designed open spaces as well as places and buildings or cultural and historic significance, and the provisions of utilities, transportation, and services adequate to meet existing and future needs.

Create and Maintain Neighborhood Stability and Sustainability – create "Great Neighborhoods"

"Neighborhoods" may be defined as a cohesive arrangement of properties, structures, streets, and uses, within an area most or all of which is residential, that shares distinct physical, social, and economic characteristics.

Creating and maintaining a stable and sustainable neighborhood is difficult. We are fortunate, however, that the majority of the neighborhoods in the City of Virginia Beach are stable, even though much of the city's housing is aging, some in excess of 50 years of age. The majority of the city's neighborhoods also possess a high degree of social connectivity and civic activism, which are vital for maintaining stability.

Our primary guiding principle for the Suburban Area is to create "Great Neighborhoods," and to support those neighborhoods with complementary non-residential uses in such a way that working together the stability and sustainability of the Suburban Area is ensured for now and the future.

To achieve this objective, the following are to be sought in the development of new residential areas and used in the assessment of their compatibility with surrounding areas:

Stable suburban neighborhood

- Careful mix of land uses that contributes to the day-today life of our residents
- Site and building design that is visually interesting, encourages greater social interaction, and provides a memorable character
- Compatible infill development
- Accommodate multiple modes of transportation (e.g., pedestrians, bicyclists, and drivers)
- Promote sustainability and responsive to changes in our environment (e.g., sea level rise)

Well-designed multi-family residential development with amenities

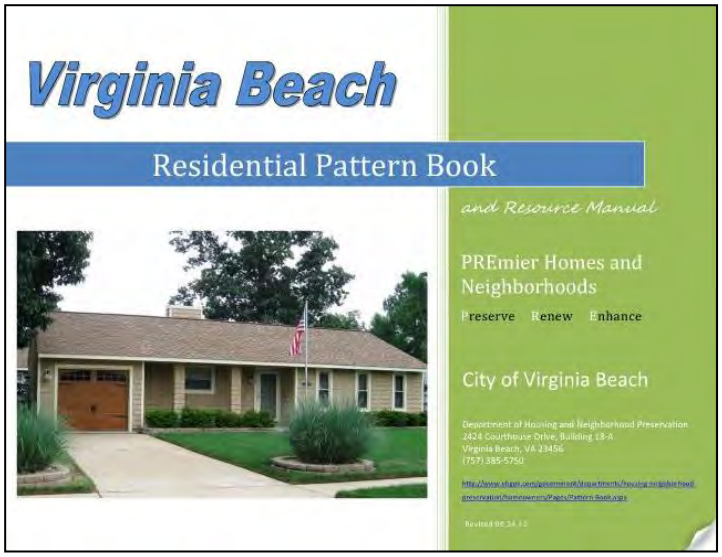
Several of the items above are based on 'Characteristics of a Great Neighborhood' as defined by the American Planning Association, as part of its "Great Places in America" program. Among them is a predominant emphasis on design of both the neighborhood and the dwellings; therefore, the *Special Area Development Guidelines: Suburban Area* found in the *Reference Handbook* are to be extensively used to guide and evaluate existing and new development within the Suburban Area. For example, new residential development on larger parcels should be consistent with the character of any residential uses in the surrounding area, as well as consistent with the guiding planning principles for the Suburban Area. Residential density in the Suburban Area should be low to medium where the surrounding land use patterns and densities are appropriate for such. Higher densities are appropriate for development in the Urban Areas.

Design plays an important role in the encouragement of social interaction and providing for a quality day-to-day experience. Equally important, however, are the institutions that support residents, such as religious uses, community centers, and schools. In particular, schools have always played a significant role in the lives of Virginia Beach residents through not only the education provided, but also by acting as centers of community activity. The quality of the educational experience and the community focus of our schools have been, and continue to be, a primary contributor to the desire of people to live in Virginia Beach, and accordingly, a driver of the City's growth. Further discussion of this aspect of the Suburban Area can be found in

Floyd E. Kellam High School

the Virginia Beach Public Schools' *Compass to 2020 Strategic Plan*, which is available online at http://www.vbschools.com/compass.

Infill development on small vacant parcels within an existing neighborhood or on parcels being redeveloped should be compatible to the existing development around it. Designing a structure *that is scaled and proportioned with* surrounding development is typically more difficult than utilizing a design that simply fits the site and meets zoning regulations. The result, however, is a structure compatible with the neighborhood with respect to land use and design and will give the impression to those who pass by that it has always been part of the original development. There is a limited amount of design guidance for infill development in the Special Area Development Guidelines: Suburban Area. Though it is focused on infill development in the Oceanfront neighborhood of Shadowlawn, the Shadowlawn Infill Development Guidelines, which are part of the Reference Handbook, provides insight into principles of developing small infill lots. Finally, development on smaller parcels, whether infill or renovation of existing dwellings should be guided by the Virginia Beach Residential Pattern Book and Resource Manual, which is available online at http://www.vbgov.com/government/departments/housing-neighborhood-preservation/homeowners/Pages/vb-pattern-book.aspx. Further discussion of infill development is found in Chapter 2, Section 2.3 - Housing and Neighborhoods Plan.



The Residential Pattern Book provides guidance for renovation of existing houses and construction of infill housing

Land use compatibility among uses within the Suburban Area is vital to the stability of the city's neighborhoods. Equally as vital, however, is the compatibility of land uses within the Suburban Area with those of the Urban Area, Princess Anne Commons, Transition Area, and Rural Area. At these transitional 'edges' from Suburban Area to Urban Areas and Suburban Area to Transition Area to Rural Area, it is critical that the *Special Area Development Guidelines: Suburban Area* be used in concert with the *Special Area Development Guidelines: Urban Areas* and the *Rural Development Guidelines* dependent on which 'edge' is involved. Moreover, additional guidance pertaining to these edges is provided in the planning documents for each of the Strategic Growth Areas.

Underutilized neighborhood shopping center

To create and maintain "Great Neighborhoods," emphasis on the residential component must be balanced by an emphasis on the commercial component. Each land use is dependent on the other, and accordingly, the quality and vitality of one affects that of the other. Just as the City's housing is aging, many of our neighborhood commercial centers are aging and showing deteriorated through years of neglect by the owners. We cannot afford to allow such deterioration to continue, as there will be a corresponding effect on our neighborhoods until eventually, a cycle of decline of both occurs. Many of the centers serve as the core of the community. The demise of neighborhoods is quickened when they are in the vicinity of abandoned aging centers, while, at the same time, development of new centers elsewhere is allowed. It is vital, therefore, that we encourage the renewal of such centers with regard to both design and the products and services provided to the neighborhoods where they are located. We must be innovative using financial, zoning, and other tools yet to be determined to encourage owners to renew these commercial centers. For example, allowing dwelling units to be added to such centers will mix land uses in a way that new customers located in close proximity are provided to businesses and additional income is provided to the property owner that can be used to renew the center. Another example is use of underutilized areas of parking lots for markets of various types (e.g., farm produce; home gardening plants and supplies, etc.).

Example of food truck bringing vitality to vacant neighborhood shopping center parking lot as part of a farm market

Of importance to our neighborhoods as well is ensuring that principles of sustainability are incorporated into our neighborhoods to make sure that future residents of our neighborhoods can enjoy the same, and potentially even better, quality of life than current residents do. Chapter 2, Section 2.2 - Environmental Stewardship Framework, as well as the City's *A Community Plan for a Sustainable Future* (commonly referred to as *The Sustainability Plan)* provide policies and strategies to that end.

Protect and Enhance Natural Open Spaces, Places and Building of Cultural and Historical Significance and Integrate into Development as Appropriate

Over the long term, the quality of the physical environment within the Suburban Area will be impacted by how well we protect and enhance its physical assets including open spaces. Carefully planned open space areas also add to the attractiveness and livability of our suburban neighborhoods. They also have a positive effect on the market value of surrounding properties and, thus, help to advance our City's economic vitality. Significant multiple benefits are derived from this amenity and, as such, it is important for the City to continue providing sufficient resources to ensure an effective, on-going open space preservation and acquisition program as identified in the *Virginia Beach Outdoors Plan* and within other areas of the City, as deemed appropriate.

Attractive park and open space design provides amenities for neighborhood residents

The following should guide the protection and enhancement of our open spaces as well as the buildings and places of cultural and historic significance within the City:

- *Maintain Existing open Spaces and Parks*

We must ensure that sufficient resources are available to adequately maintain existing public open space, parks, and recreation areas. We must also develop tools that assist neighborhoods developed with open space areas and parks, but which are now difficult to maintain due to declining revenues of property owners' associations.

- *Create New Open Spaces with Development, including City Capital Improvement Program Projects*

Continue adding new publicly owned and/or accessible open space areas and viewsheds, especially in areas of need in accordance with the *Virginia Beach Outdoors Plan*. In addition, explore reasonable alternatives to achieve these objectives including the purchase of easements, land swaps, or long term lease agreements to protect open space areas within or adjacent to defined areas of need.

Public road project with well-integrated open space and streetscape landscaping

Where appropriate, carefully planned open space areas should be included as an important element of Capital Improvement Program projects. This is particularly vital when such actions reinforce the character and quality of the physical environment of stable neighborhood areas or complement open space being included with new development.

As part of proposals for new development or redevelopment, carefully consider the location of proposed open space areas and trails to create a physical link and complement other similar features that exist or may be planned on adjacent or nearby properties.

- *Apply Natural Resource Planning Principles in Development*

Ensure that all new development and redevelopment preserves the quality of our natural environment by adhering to established natural resource planning principles. These include, among others, the clustering of lots, where appropriate, to increase areas of preserved natural resources, maintaining natural buffers adjacent to shorelines, minimizing impervious cover of such features as buildings, roads and parking areas, following innovative stormwater management practices, and utilizing drought tolerant plant material.

We should also ensure that new development responds to the effects of projected sea level rise as well as the recurrent flooding that occurs in areas of the City.

Southern Watershed Subject to "Special Drainage Considerations"

In addition, the Southern Watershed portion of the Suburban Area is subject to "special drainage considerations." Drainage in the Southern Watershed is highly impacted by the presence of high ground water, poorly draining soils, and high water surface elevations in downstream receiving waters. Therefore, it is incumbent upon the developer of any property in the Southern Watershed to understand and evaluate these factors prior to undertaking the project and to properly account for these factors in the project design. Receiving waters in the Southern Watershed are subject to tidal influences which can be exacerbated by winds. High ground water elevations and poorly draining soils can result in increased runoff, can limit the capacity of the stormwater conveyance systems, and can counter indicate the use of certain Best Management Practices, such as infiltration.

All of these effects must be fully considered and evaluated in the analysis and design of drainage systems in the Southern Watershed. Accordingly, it is strongly recommended that the developer has a preliminary drainage study prepared by a qualified professional engineer in advance of any request to approve a discretionary (versus by-right) development application that involves land disturbance in the Southern Watershed. The drainage study should fully and accurately evaluate the effects of the foregoing factors on the planned development and on upstream and downstream areas. The proposed drainage system for the planned development would provide positive drainage that meets City standards and does not result in flooding within the planned development or to upstream or downstream areas.

- *Protect Resources of Historic and Cultural Significance*

Historic Adam Thoroughgood House

Coupled with protecting open space is the importance of protecting our resources of historic and cultural significance. It is the policy of the City to use all available resources, including those provided by the City's Historic Review Board, Historic Preservation Commission, as well as the Princess Anne County/Virginia Beach Historical Society, to preserve such resources. Efforts to retain these historic resources should be accomplished in a responsible and innovative manner. The efforts include providing land use planning guidance and tax credit assistance to owners of historic properties in order to help protect and preserve the City's limited number of valuable historic resources and surrounding open space areas. Owners of qualified properties should be encouraged to participate in the Virginia Beach Historical Register program and receive recognition for their contributions to our City's heritage.

Create and Maintain a Transportation System that Provides Connectivity and Enhances Mobility Regardless of Transportation Mode

Movement through the Suburban Area and to destinations outside the Suburban Area is heavily dependent on the automobile, which in turn is dependent on a network of roadways that has traditionally been designed to move automobiles from one place to another in the fastest and safest manner. Currently, a conflict exists between the goal of encouraging the public to use transit service and other modes of travel and the limited demand for such services in a typical suburban setting. A disproportionate reliance on the automobile, often with only a single occupant, creates these negative results:

Construction of new Lesner Bridge Replacement over Lynnhaven Inlet

- Declining environmental quality;
- Inefficient use of energy resources;
- Stress on the economy due to increased costs to residents to maintain vehicles and help pay for system improvements;
- Stress on the public sector due to the need to find innovative means to fund improvements to the existing system, the development of new systems, and the maintenance of the complete transportation system;
- Time lost due to congestion; and,
- A reduction in quality of life due to all of the above.

Chapter 2, Section 2.1 - Master Transportation Plan describes this transportation system in detail, explains the issues we face, and provides recommended policies and capital improvements to create a system that, over time, will reduce our dependence on the automobile.

NEIGHBORHOOD TRAFFIC CALMING

There are ways to slow vehicular movement inside residential areas and reduce 'cut through' traffic. Often called 'Traffic Calming', these techniques include assessing the neighborhood traffic condition and, if warranted, providing greater police enforcement, limiting direct access to neighborhoods from adjoining roadways, adding traffic circles, narrowing street widths in certain areas and the use of other methods to reduce traffic volume and speed.

The City has instituted a multi-step 'Traffic Calming' program to accomplish these objectives and this program should be used, where necessary, to increase public safety within neighborhoods.

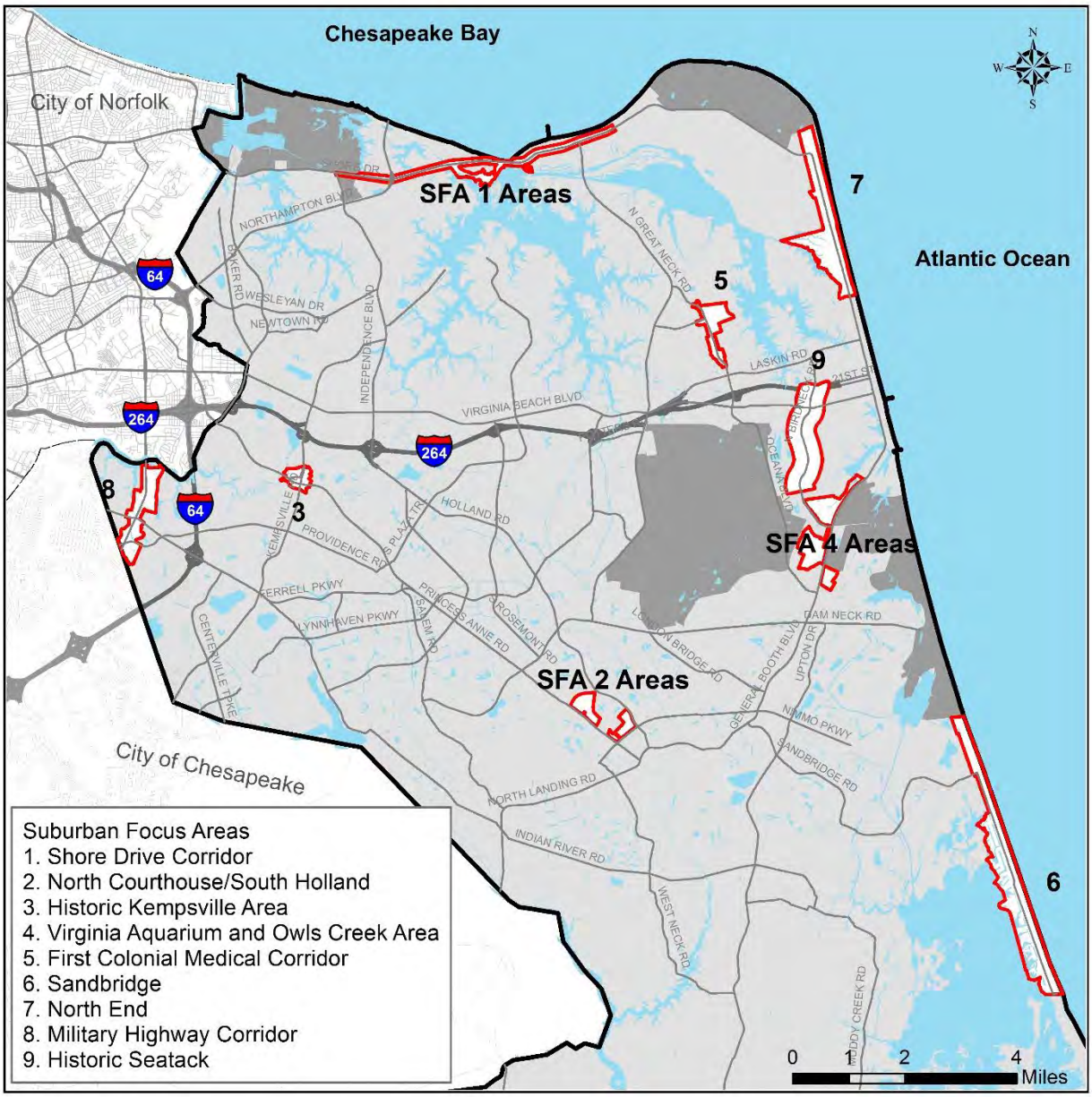
Traffic calming technique - traffic circle or roundabout

AREA-SPECIFIC PLANNING RECOMMENDATIONS FOR SITES IN THE SUBURBAN AREA – SUBURBAN FOCUS AREAS (SFAs)

The following section of this chapter provides more refined planning guidance for designated Suburban Focus Areas (SFAs) throughout the Suburban Area. Much of the Suburban Area comprises well-established neighborhood and commercial areas that define the land use character in the northern portion of the City and should remain that way into the foreseeable future. However, opportunities to reinforce or revitalize certain areas by providing compatible land use guidance or recommendations to improve the quality of land use exists on certain suburban tracts. The purpose of Suburban Focus Areas is to offer guidance to advance these objectives. In some cases, area master plans have been developed for designated SFAs (e.g., Historic Kempsville Area, Shore Drive Corridor, and the Virginia Aquarium & Owls Creek Area).

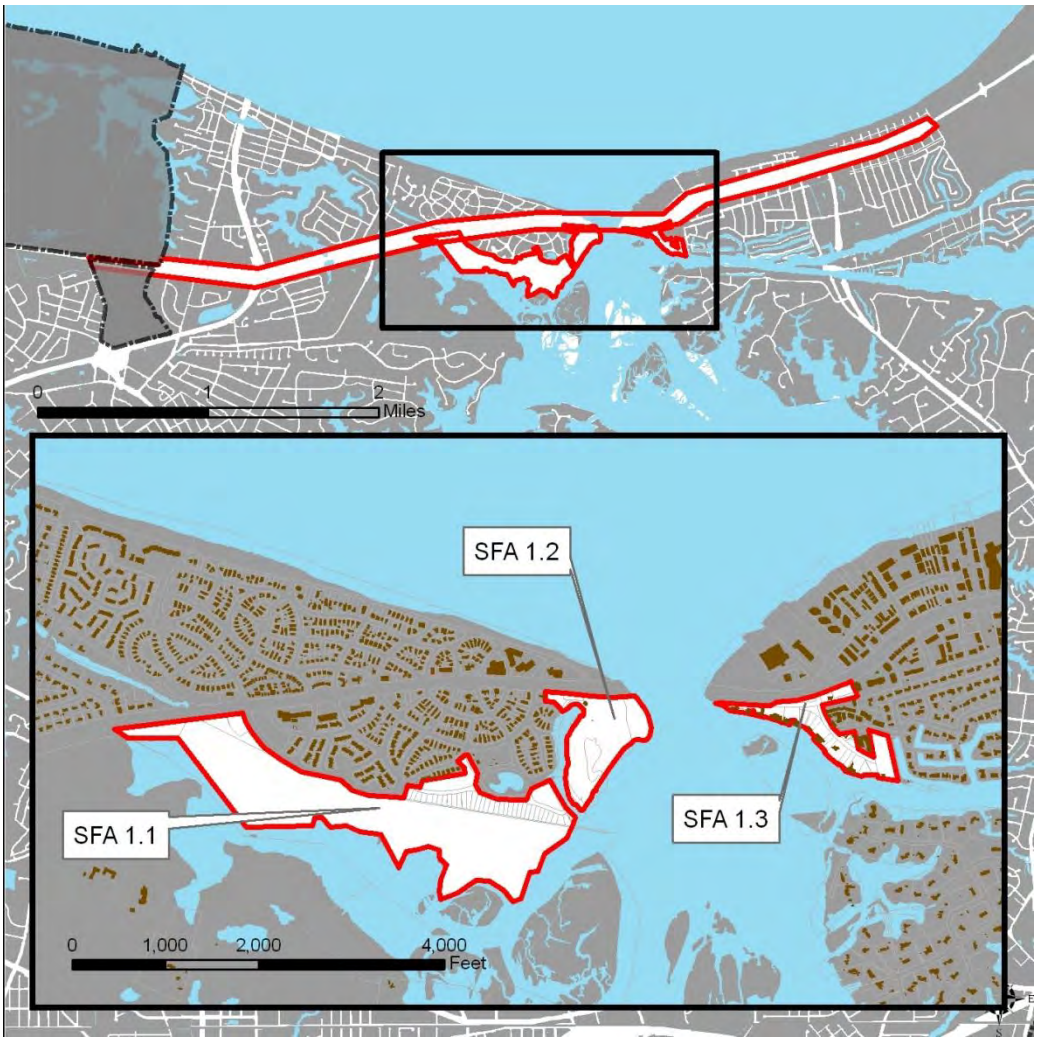
There are 9 SFAs designated in the Comprehensive Plan, which can be found on the locator map on p. 1-69:

1. Shore Drive Corridor
2. North Courthouse/South Holland Road
3. Historic Kempsville Area
4. Virginia Aquarium & Owls Creek Area
5. First Colonial Medical Corridor
6. Sandbridge
7. North End
8. Military Highway Corridor
9. Historic Seatack



SUBURBAN FOCUS AREAS LOCATOR MAP

SFA 1 - SHORE DRIVE CORRIDOR



DESCRIPTION

This corridor is characterized by:

- many well-established neighborhoods
- newer high density residential development
- neighborhood and resort commercial uses
- significant parks and open spaces
- proximity to Chesapeake Bay and Lynnhaven River

The Shore Drive Corridor is an integral part of the Bayfront Community, extending from North Independence Boulevard to First Landing State Park. While primarily a residential community, the corridor shares the responsibility of being one of Virginia Beach's primary east-west connectors, creating unique and sometimes problematic challenges. The area is considered a resort neighborhood and not a resort destination. This means that the Shore Drive Corridor:

- while the most densely populated area of the City, is primarily a neighborhood residential area;

- comprises commercial uses to support the neighborhoods;
- accommodates Shore Drive, a primary circulation corridor for the City; and,
- affords more passive recreational and tourism amenities.

The Bayfront Advisory Commission (originally established as the Shore Drive Advisory Committee and then the Bayfront Advisory Committee) was established by City Council in 1998. The mission given by City Council to the Bayfront Advisory Commission is:

> . . . to review and make recommendations to the City Council regarding public and private projects and issues associated with the Bayfront area, and projects or issues associated with the Bayfront area that the City Council may refer to the Commission.

More information is provided in the *Shore Drive Corridor Plan*, adopted by the City Council in 2000. The *Shore Drive Corridor Design Guidelines* provide direction for the form and function of land use and development in this area. Both of these documents are available in the Planning Department's online Document Library at www.vbgov.com/Planning.

The planning policies that apply to the entire Shore Drive Corridor and Bayfront Communities are:

- Completion of the remaining roadway improvements (all identified Phases) along Shore Drive to enhance the safety, access, and character of the Corridor;
- Retain the majority of Shore Drive, particularly east of the bridge, as a four-lane road for as long as is practical but protect the necessary right-of-way for an expansion to a six-lane facility, if necessary. Any increase in the number of lanes on Shore Drive could negatively impact the community by further separating the northern and southern parts of the Corridor;
- Ensure safe passage by pedestrians from one side of Shore Drive to the other side through reduced speed limits and well-identified pedestrian crossings;
- Ensure the safety of bicyclists using Shore Drive;
- Preserve and protect the character of the established neighborhoods;
- Improve land use compatibilities and avoid over-commercialization to ensure that resort-based uses complement rather than dominate this corridor;
- Encourage reuse and revitalization of existing commercial properties;
- Achieve the lowest reasonable density for future residential uses;
- Implement the recommendations of the Sea Level Wise Adaptation strategy to address projected sea level rise and recurrent flooding that occurs in this area.
- Update the *Shore Drive Corridor Design Guidelines*, and in particular, develop design guidance for residential development within the Corridor and its established neighborhoods;
- Improve public parking and public access to the beachfronts;
- Provide a continuous multipurpose trail through this corridor (reference the *Virginia Beach Outdoors Plan* for recommendations); and,
- Provide continued support for restoring the health of the Chesapeake Bay and Lynnhaven River.

This Suburban Focus Area has three sub-areas that, due to unique issues and/or opportunities, require further guidance. The following sections provide specific planning guidance for each.

SFA 1.1 – PLEASURE HOUSE POINT

- Maintain and protect the significant investment that has been made to preserve Pleasure House Point for open space, limited recreation, natural resource preservation, and natural resource education.
- Ensure that any development in the surrounding area is complementary with regard to both design and land use to the natural resource and open space amenity provided by Pleasure House Point.

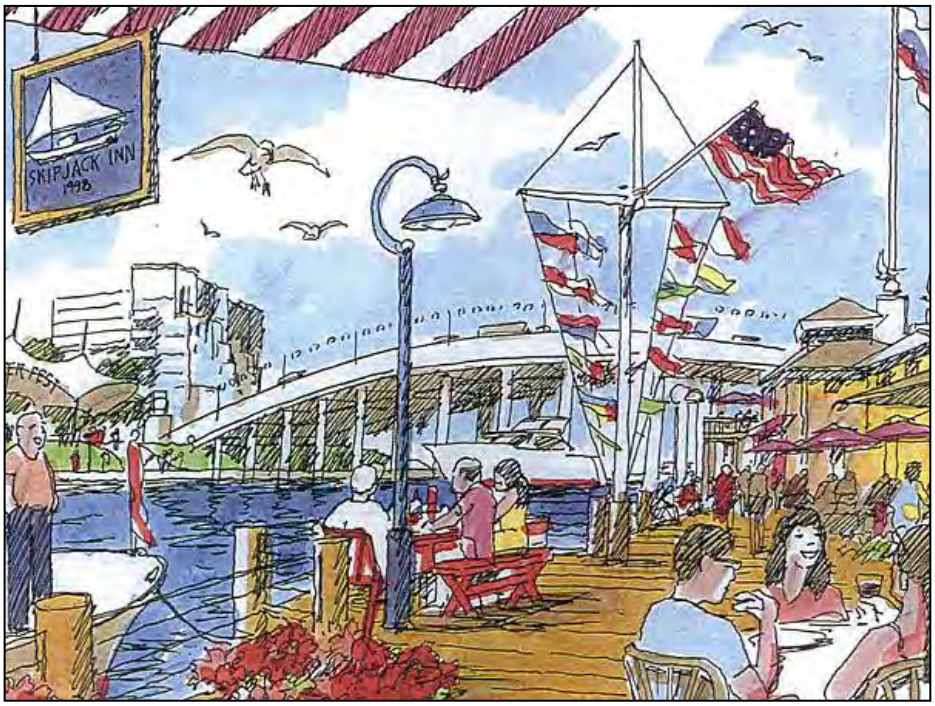
Pleasure House Point

SFA 1.2 – LYNNHAVEN BOAT AND BEACH FACILITY

- Continue as a public waterway access for motorized and non-motorized watercraft;
- Add appropriately scaled public park and recreational facilities; and,
- Provide linkage to Shore Drive trail system and Chesapeake Bay beaches.

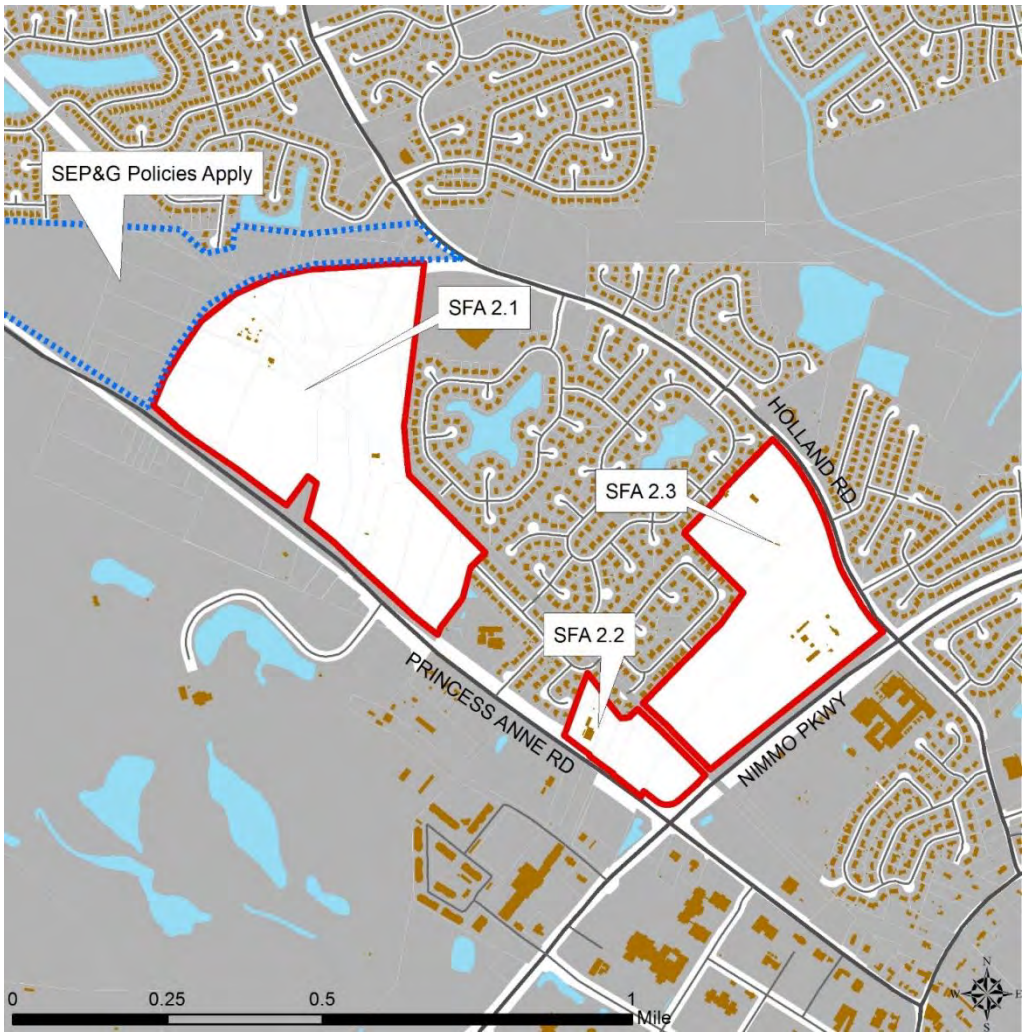
SFA 1.3 – WATERMAN'S WALK

- Coordinate with property owners to create a thematic waterfront concourse overlooking the Lynnhaven Inlet;
- Create a special place for people to shop, work, live, and enjoy the exceptional waterfront amenities;
- Consider establishing a public-private partnership to achieve this vision; and,
- Integrate a variety of appropriately scaled mixed uses including marinas, restaurants, residential units, specialty retail shops, and offices.



Concept sketch of Waterman's Walk

SFA 2 – NORTH COURTHOUSE/SOUTH HOLLAND ROAD



DESCRIPTION

This area has the following characteristics:

- Location within the 70 to 75 dB DNL AICUZ and the 65 to 70 dB DNL (Sub-Area 2) AICUZ
- Location north of the Green Line at the edge of the Suburban Area and adjacent to SEGA 4 - Princess Anne Commons, as well as the Municipal Center and Courthouse
- Stable and well-established neighborhoods
- Proximity to new roadways: Princess Anne Road, Nimmo Parkway, and Holland Road
- Undeveloped areas, with some consisting of one or two parcels and property owners and others consisting of multiple parcels and multiple (and in some cases, undetermined) property owners
- Historical, architectural, and archaeological resources

Aerial photograph of SFA 2 and surrounding area

With the improvement of Princess Anne Road from a two-lane roadway to its current four-lane parkway, the improvement of Holland Road from a two-lane roadway to a four-lane arterial, and the completion of Nimmo Parkway from the Courthouse to General Booth Boulevard, this area is now well-served by the transportation system and strategically located for appropriate development. Princess Anne Road, a major north to south roadway, has been widened and improved with its own special unifying 'brand' of significant attractive landscaping, open space, multi-use paths, and pedestrian lighting. Nimmo Parkway is now a major east to west arterial roadway with multi-use paths, providing a connection from this area to General Booth Boulevard and the trail adjacent to it. Scheduled for completion in 2017, construction has begun to widen and improve Holland Road with sidewalks, aesthetic treatments, and landscaping from Dam Neck Road to Nimmo Parkway. Commercial and residential development continues to be attracted to the area as evidenced by the 240-unit multifamily complex developing behind the shopping center on Nimmo Parkway and the numerous businesses located nearby. Additionally, several large tracts of undeveloped land provide exceptional development opportunities for a variety of uses ranging from residential to commercial projects, all dependent, however, on the compatibility of any proposed use to the AICUZ of the site.

Hampton Roads Joint Land Use Study

The City of Virginia Beach has adopted a series of policies and ordinances to achieve objectives outlined in the *Hampton Roads Joint Land Use Study* and the City's Oceana Land Use Conformity Program. These provisions apply to most of the North Courthouse / South Holland Area. For areas within the 70 and higher dB DNL AICUZ, development of property for residential use is limited to what is already zoned for such use. Other properties, located within the 65 to 70 dB DNL AICUZ, may be developed through a change of zoning consistent with Article 18 of the City Zoning Ordinance.

Access Controlled Roadways Policy - Nimmo Parkway and Princess Anne Road

Nimmo Parkway and this section of Princess Anne Road are designated by the Master Transportation Plan (Chapter 2, Section 2.1) as "Access Controlled" roadways, which means private direct access to Nimmo Parkway and Princess Anne Road is not permitted, except when a property has no other reasonable access to the roadway system. In such cases, direct access is allowed until such time that access can be gained from the back of the lot by some means, such as a new roadway. Many times, these roadways are purposefully planned and constructed as part of a large development and are referred to a 'reverse frontage' roads.

SFA 2 - GENERAL RECOMMENDATIONS

With regard to residential development, when found to be an appropriate land use, the following recommendations focus on providing a density range between 'baseline' and 'incentive.' The incentive level relies on development options and performance guidelines to help achieve the objectives of creating well-planned developments, protecting existing neighborhoods, and implementing the policies of the Master Transportation Plan with respect to roadway access. Baseline options apply to development proposals that are limited in achievement of meeting the planning objectives for the North Courthouse/South Holland Area. Incentive options apply to development proposals that meet or exceed these planning objectives. The level of density recommended within each Subarea will be commensurate with the degree to which the development integrates the general and Subarea-specific recommendations, but more importantly to what is appropriate under the provisions of Section 1804 of the Zoning Ordinance.

The following recommendations should be applied to the North Courthouse/South Holland Road Suburban Focus Area:

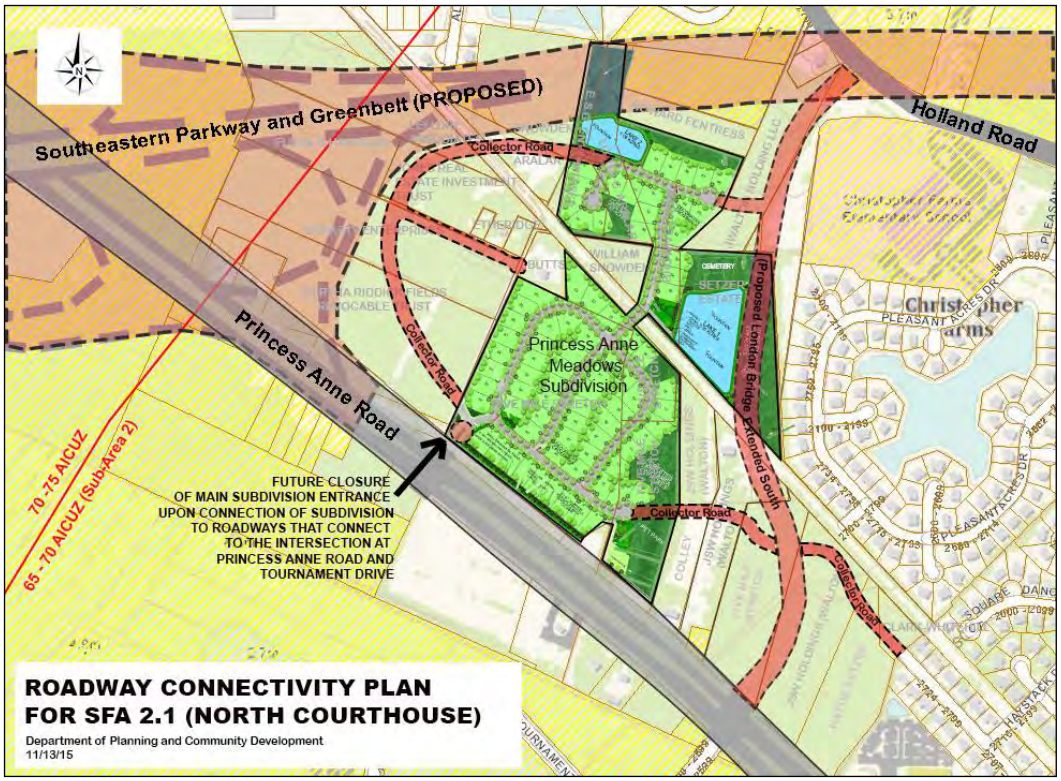
- As many parcels as possible within SFAs 2.1, 2.2, and 2.3 should be consolidated into a single, well-configured tract of land that enables a safe, coordinated, and attractively designed development plan.
- Proposed uses should reinforce and emphasize the character of the area and should be compatible with the adjacent neighborhoods.
- Significant landscape buffers should be established between existing residential areas and proposed developments and roadways to mitigate adverse visual and noise concerns.
- Site designs and buildings should complement the Municipal Center to the south.
- Integrate adjacent land uses such that each complements the other visually, functionally, and spatially with attractive landscaped vistas, open space areas and multipurpose trails, and other amenities to enhance the quality of the physical environment and provide connectivity.
- Open space areas and vistas should include preservation of mature tree stands and have significant landscaping.

- Design streets and stormwater management facilities using aesthetic and environmental design techniques to enhance scenic and open space opportunities.

SFA 2.1 – NORTH COURTHOUSE

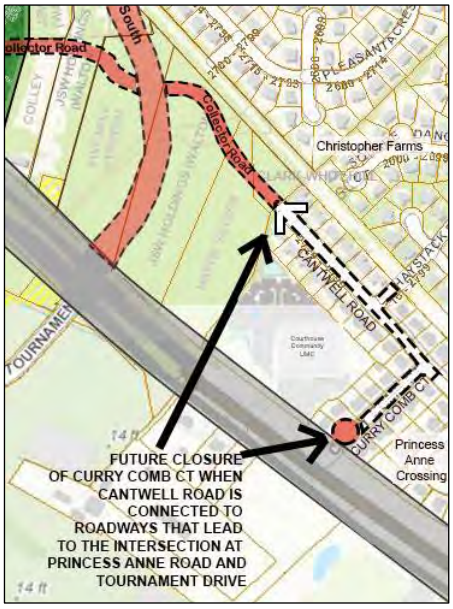
Bounded on the north by the proposed Southeastern Parkway interchange, on the south and east by the Christopher Farms subdivision, and to the west by Princess Anne Road, the North Courthouse SFA consists of approximately 100 acres and includes numerous privately-owned parcels with a few single-family residences. It is located within the 65 to 70 dB DNL AICUZ (Sub-Area 2), and thus, residential development is subject to the AICUZ Overlay Ordinance, Section 1804. One of the goals for SFA 2.1 is that properties will be accessed by a proposed connector road (London Bridge Extended) that would cross through this area to link Holland Road with Princess Anne Road, aligning with the entrance to the Virginia Beach National Golf Course. The City Council has identified the roadway system as shown on the connectivity plan below as guidance for properties as SFA 2.1 develops. These connections will ensure that all of the properties have access to Princess Anne Road at one location, consistent with the Controlled Access designation for Princess Anne Road.

Furthermore, one of the conditions of approval for the Princess Anne Crossing subdivision was that the intersection at Curry Comb Court and Princess Anne Road was temporary, and, following the widening of Princess Anne Road, Curry Comb Court would be closed, and an alternative roadway access would be provided. This alternative new roadway access would be provided via a portion of the proposed connector road [London Bridge Road Extended] and a new roadway link connecting the



proposed connector road [London Bridge Road Extended] to Cantwell Drive and Courthouse Community United Methodist Church, which is to lose its access to Princess Anne Road as well. The plan drawings above and to the right depict this proposed access route.

RECOMMENDATIONS



Roadway access recommendation for southern part of SFA 2.1

- Non-Residential
  - Based on the AICUZ, non-residential use may be preferable. In this case, the development of the property should be consistent with that located in Princess Anne Commons on the south side of Princess Anne Road. High quality, low-rise offices are encouraged.
  - A limited range of residentially compatible, non-intrusive service uses, such as day care centers and medical offices are appropriate.
  - Non-residential development should be carefully planned and integrated into the development.

- "Baseline" Density
  - In addition to the 'General Recommendations' above:
    Single-family residential development with an overall maximum density of two dwelling units per acre.
  - Variety of housing unit types is encouraged.

- "Incentive" Density

  In addition to the 'General Recommendations' above:

  - The development site should consist of the consolidation of as many contiguous parcels of land to ensure the recommendations for the area can be satisfied.
  - Consistent with the provisions of Section 1804 of the Zoning Ordinance, single-family residential development with an overall maximum density of 3.3 dwelling units per acre.
  - Exceptional open space areas and vistas should be provided.
  - Stormwater management facilities should be designed as an amenity.
  - Access to Princess Anne Road should be exclusively by a system of collector roads connecting Holland Road to Princess Anne Road at an intersection aligned with the Virginia Beach National Golf Course entrance (as shown on the Roadway Connectivity Plan above).
  - Every effort should be made to save any areas of undisturbed mature trees located adjacent to the Christopher Farms neighborhood and elementary school.
  - Where possible, a berm and heavily landscaped buffer approximately 100 feet in width should be located between Christopher Farms and any roadway constructed between Holland Road and Princess Anne Road. Buffer plantings should incorporate evergreen plantings of trees and shrubs.

- Combination of Residential and Non-Residential

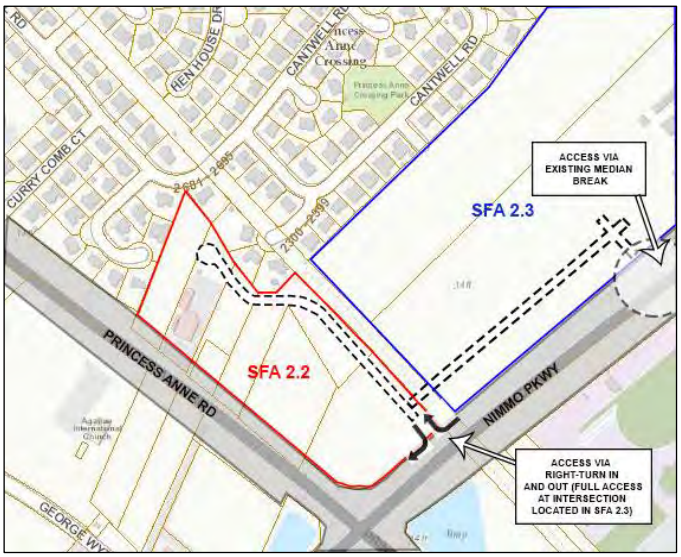
    - A combination of single-family residential with non-residential use of the type described above are possible within SFA 2.1 should the recommendations for each be achieved.

SFA 2.2 – COURTHOUSE CORNER

Courthouse Corner is comprised of seven parcels totaling approximately 13 acres. Located on the northeast corner of the Nimmo Parkway and Princess Anne Road intersection, it is situated within the Less than 65 dB DNL AICUZ.

RECOMMENDATIONS

- Efforts should be made to encourage parcel consolidation.
- Significant landscape buffer adjacent to the existing residential area should be included.
- Recommended uses include low-rise, low-intensity office and service uses that are attractively designed with reverse frontage access. Residential dwellings mixed with such uses is appropriate.
- Roadway and driveway accesses should be in keeping with the Access Controlled designation for Princess Anne Road and Nimmo Parkway. Those properties fronting on those roadways should be provided access from a connecting roadway located to the rear of these properties - otherwise known as "reverse frontage" access. At the time such access is provided, all direct access to Princess Anne Road from development within Courthouse Corner should be completely closed. The plan drawing to the right depicts this concept.
- This proposed reverse frontage road should not connect to the existing adjacent residential area.
- As shown on the plan drawing to the right, efforts should be made to provide a single, common access road from Nimmo Parkway that would serve the Courthouse Corner and the South Holland areas.



Roadway access recommendation SFA 2.2 and SFA 2.3

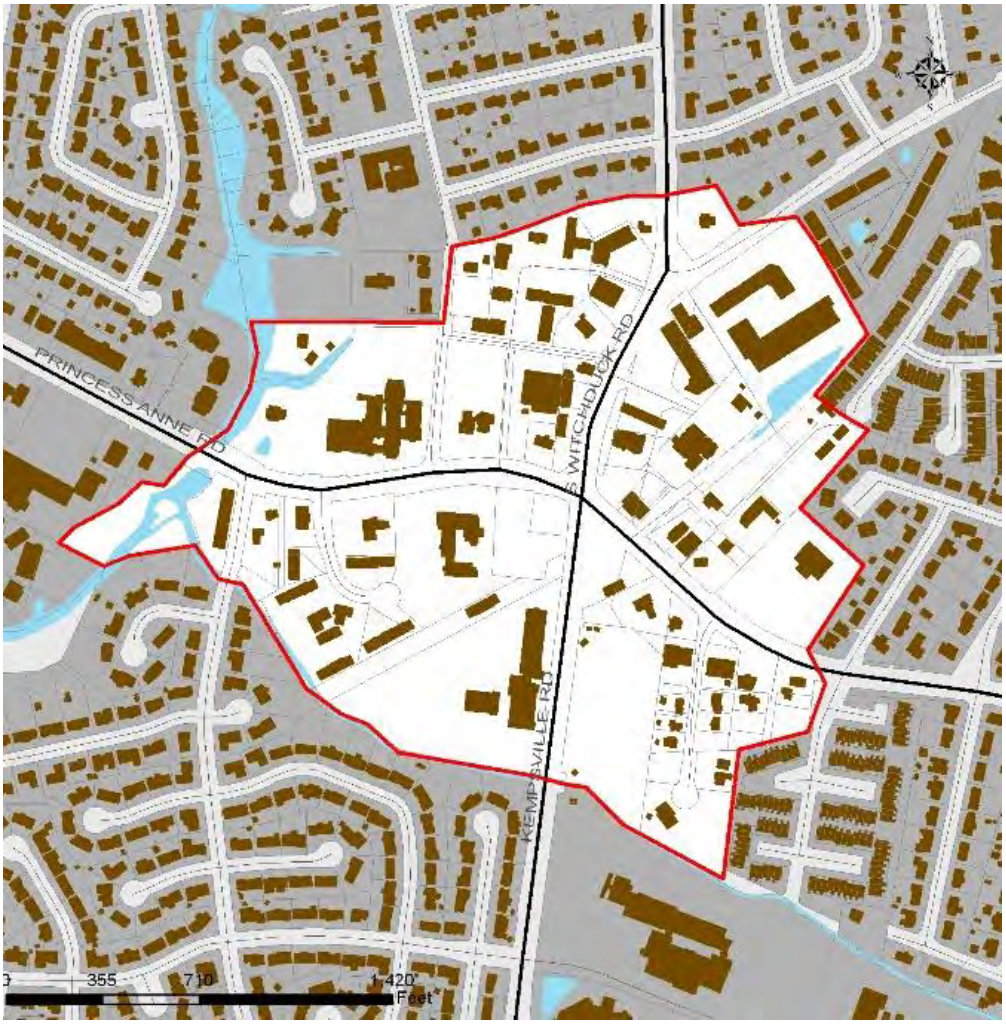
SFA 2.3 – SOUTH HOLLAND

The South Holland Subarea is located on the northwest corner of the Nimmo Parkway and Holland Road intersection and stretches southwest toward Princess Anne Road. It includes six properties totaling approximately 65 acres and contains a historic resource known as Buyrn Farm. A majority of South Holland is located within the 65 to 70 dB DNL AICUZ (Sub-Area 2) while the southwest section is located within the Less than 65 dB DNL AICUZ.

RECOMMENDATIONS

- Single-family residential development with an overall maximum density consistent with the AICUZ Overlay Ordinance, but not to exceed four units per acre.
- A limited range of residentially compatible neighborhood-serving specialty retail shops, office, and service uses may be allowed. Examples of limited neighborhood service uses are day care centers, medical offices, pharmacies, and similar non-intrusive uses.
- Efforts should be made to create a single, common access road from Nimmo Parkway to serve Courthouse Corner and South Holland (as shown on map above).
- No roadway access should be provided to the existing adjacent residential area, Princess Anne Crossing, from the South Holland Subarea.

SFA 3 – HISTORIC KEMPSVILLE AREA



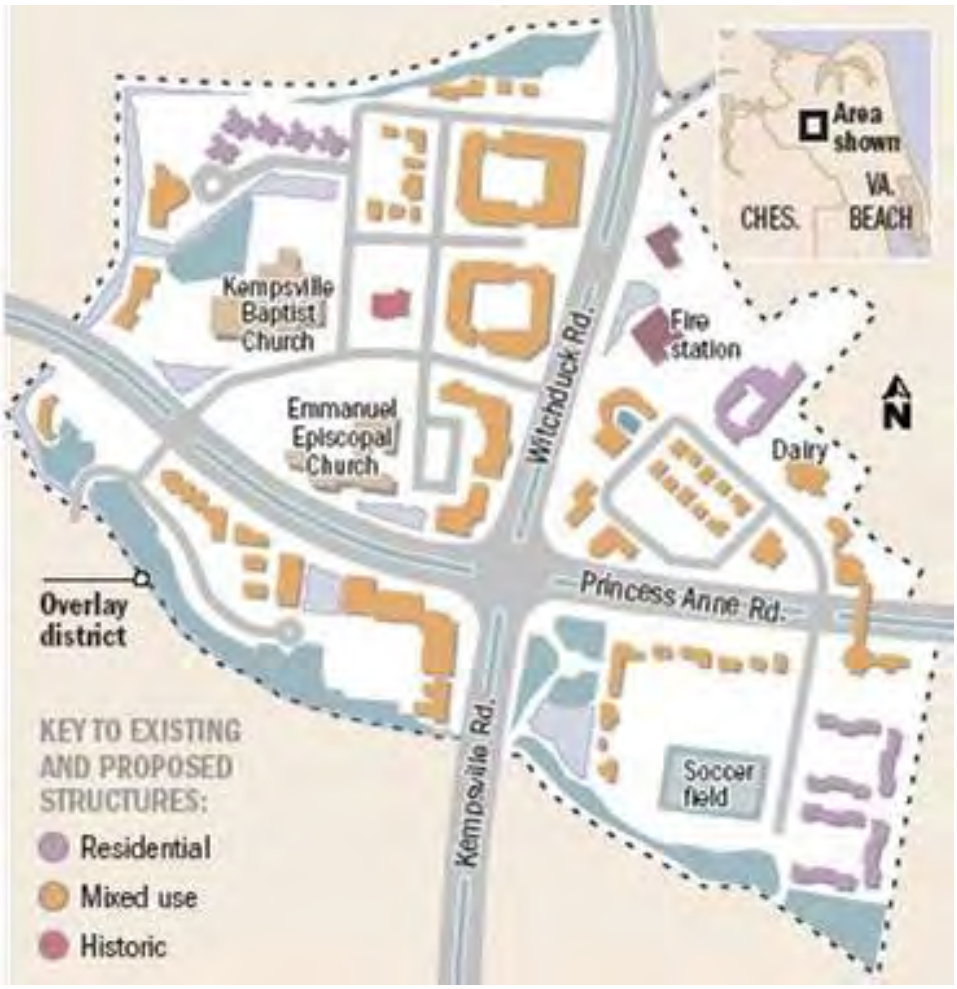
DESCRIPTION

Following considerable public involvement, the City Council adopted the Historic Kempsville Area Master Plan in January of 2006. This plan outlines the methods needed to implement land use, environmental, transportation and design improvements to accomplish the desired revitalization of this area. It also provides guidance to leverage public investments to achieve multiple outcomes and create a high quality 'village' center. The Historic Kempsville Area Master Plan is available in the online document library at www.vbgov.com/Planning.

RECOMMENDATIONS

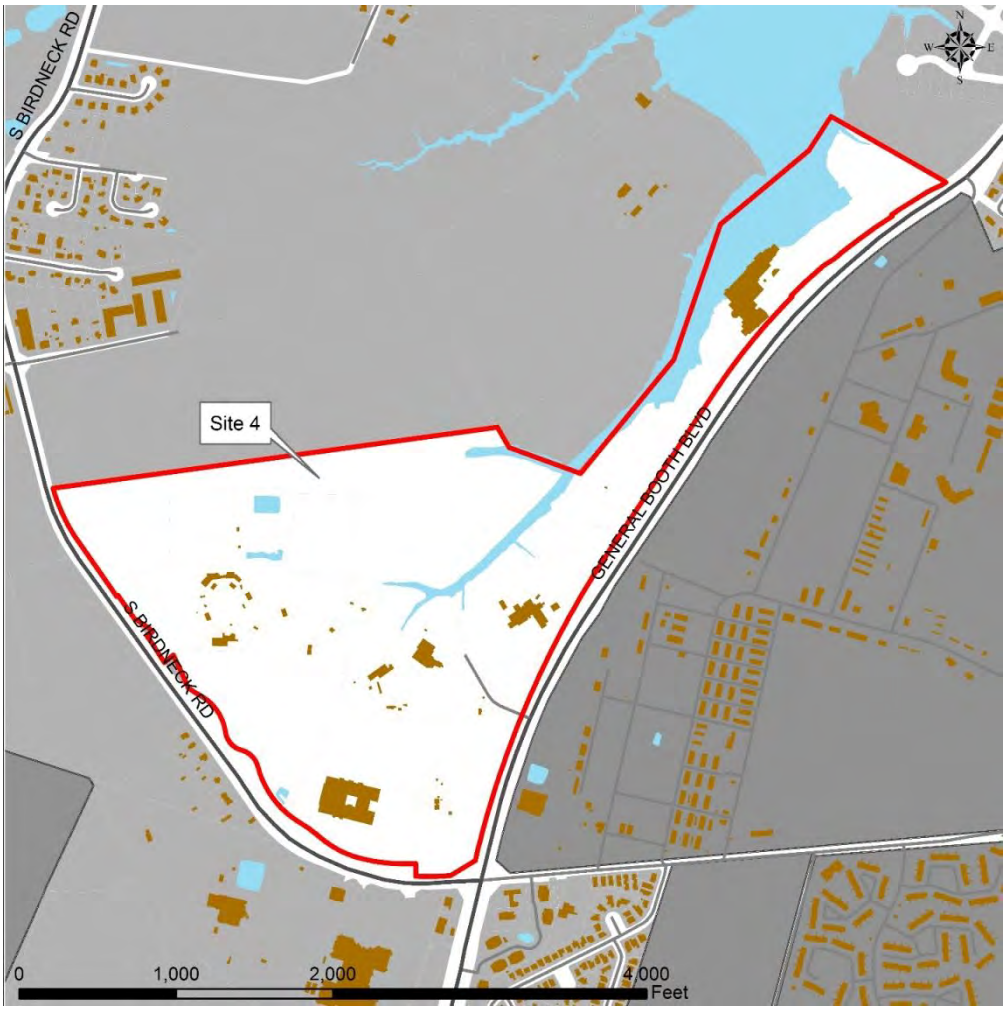
Adhere to the Vision and Goals cited in the Historic Kempsville Area Master Plan especially as they relate to the protection of adjoining stable neighborhoods. The following summarizes the master plan's provisions for each of the quadrants around the realigned Princess Anne/ Witchduck Road intersection:

- *Northeast Quadrant:* Implement the colonial village core to include medical services, senior housing, and public safety and support activities.
- *Southeast Quadrant:* Implement residential uses with a village green and secondary non-residential uses.
- *Southwest Quadrant:* Implement a mixed use development to include residential and compatible non-residential with waterfront access to include an historic interpretive area.
- *Northwest Quadrant:* The future use of Pleasant Hall, a house built in 1769, should respect its historic heritage, as should the form and function of other uses within this quadrant.



Historic Kempsville Area Master Plan, 2005

SFA 4 - VIRGINIA AQUARIUM AND OWLS CREEK AREA



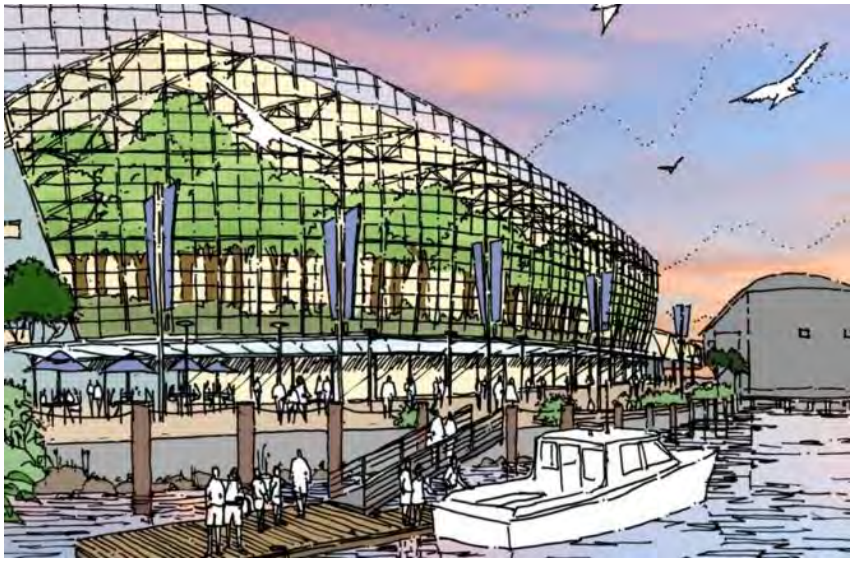
DESCRIPTION

The Virginia Aquarium and Owls Creek area is generally bound by General Booth Boulevard and South Birdneck Road on the south and east and by property owned by the United States to the north. This area has great potential to be a national example of sustainable growth and economic development geared towards environmental preservation. With a vision supported by the community, the *Virginia Aquarium and Owls Creek Area Master Plan* (https://www.vbgov.com/government/departments/sga/projects/oc/oc-masterPlanNov2011.pdf) encourages development or redevelopment of regional significance by protecting the natural environment, facilitating a mix of connectivity, enhancing the character, and providing incentives for quality development.

RECOMMENDATIONS FOR VIRGINIA AQUARIUM AND RESEARCH CENTER AREA

The Virginia Aquarium and Research Area is planned to create expansion opportunities focusing on environmental education, stewardship, and research. The master plan for the aquarium area includes:

- New aquarium exhibit building linked to the existing aquarium to provide additional space for exhibits, banquet facilities, and meeting rooms to position the Virginia Aquarium alongside the top tier aquariums in the world.
- A research aquarium serving multiple functions diversifying the base of economic activity in the aquarium area, creating a hub of marine science and "green" research and innovation.
- The existing boat ramp will remain serving the public, the aquarium, and the green research building.
- A green research building will provide space for environmental and energy related research.



Virginia Aquarium and Research Area Concept

RECOMMENDATIONS FOR THE RESEARCH CENTER AT OWLS CREEK POINT AND MARSHVIEW PROPERTY

The Research Center at Owls Creek Point and Marshview Property is a low-impact development that is a supportive extension of the research complex located primarily in the Aquarium area. This development includes additional research space and research-oriented conferencing and symposia space such as:

- A natural setting for research, learning laboratories, and small research-oriented meetings and events to attract a niche audience.
- The trail system links to the overall trail system throughout the nature park on the Marshview property.
- The property will offer to nearby residents, amenities including open nature trails, lookout-towers, boardwalks, open play recreational fields, and possibly a dog park.

Concept for the Research Center

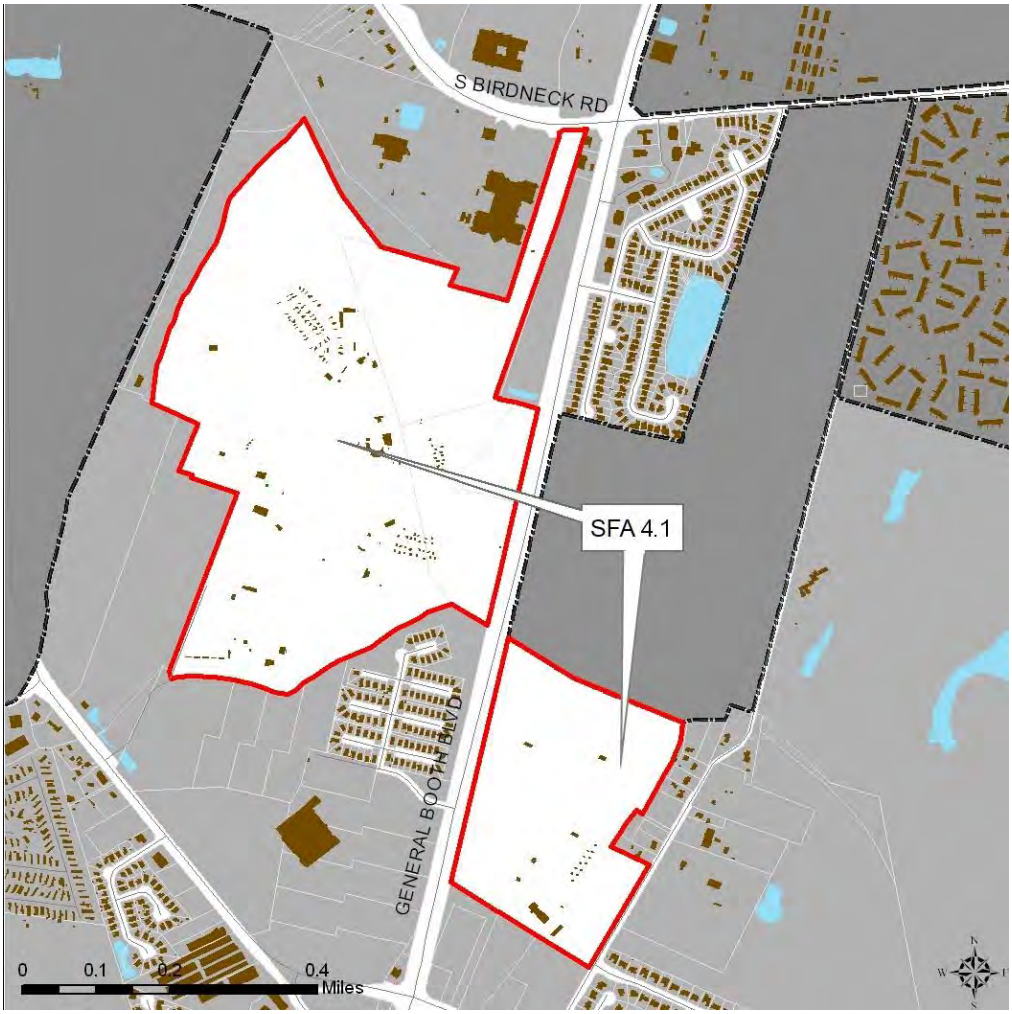
RECOMMENDATIONS FOR THE ENTERTAINMENT AND EDUCATION CENTER

The Entertainment and Education Center includes expansion space for existing attractions, creates new indoor and outdoor attractions, and introduces retail, restaurant, and entertainment space to comprise a mixed-use leisure and entertainment destination.

- The Entertainment Village expands the existing Motor World and Ocean Breeze areas to offer additional rides and one continuous entertainment village at the core of the area with retail and restaurants.
- The prominent corner of General Booth Boulevard and South Birdneck Road will be a continuation of the retail, restaurant, and entertainment with high exposure.
- An outdoor adventure park geared toward the adrenalin seeking visitors is located in this area. First steps to this end began in 2014 with a zip line and high ropes course, creating a unique opportunity through the Aquarium to get visitors immersed in the natural beauty of the area.
- The Coastal Pavilion expansion offers more exhibits relating to the coastal environment.
- Seatack Elementary will remain with an increased natural buffer and a dedicated pathway connecting the school to the Coastal Pavilion for possible joint learning programs.

Entertainment and Education Center concept

SFA 4.1 - GENERAL BOOTH CAMPGROUNDS



DESCRIPTION

The Holiday Trav-L Park is located on the west side of General Booth Boulevard and the KOA Campground on the east side. Both offer outdoor recreational activities for citizens and visitors of Virginia Beach and complement our City's recreational programs and the resort hospitality industry.

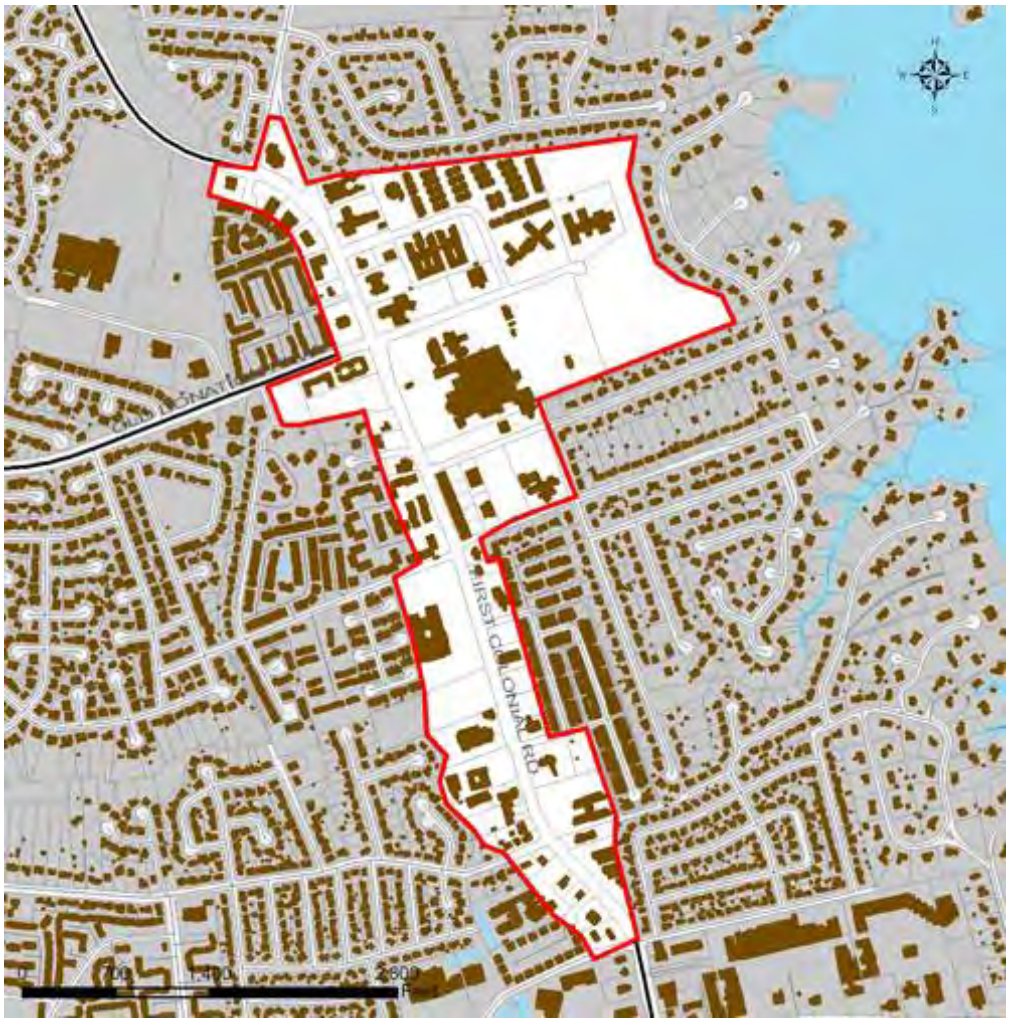
RECOMMENDATIONS

- The existing campgrounds offer outdoor recreational activities for both citizens and visitors of Virginia Beach and are appropriate uses for these sites.
- Where consistent with AICUZ policy, alternate uses may include attractive, high quality, and low intensity:

- Offices;
- Resort oriented retail;
- Resort oriented recreational; or
- Other AICUZ compatible uses

Residential or hotel uses are not recommended for either campground site.

SFA 5 - FIRST COLONIAL MEDICAL CORRIDOR



DESCRIPTION

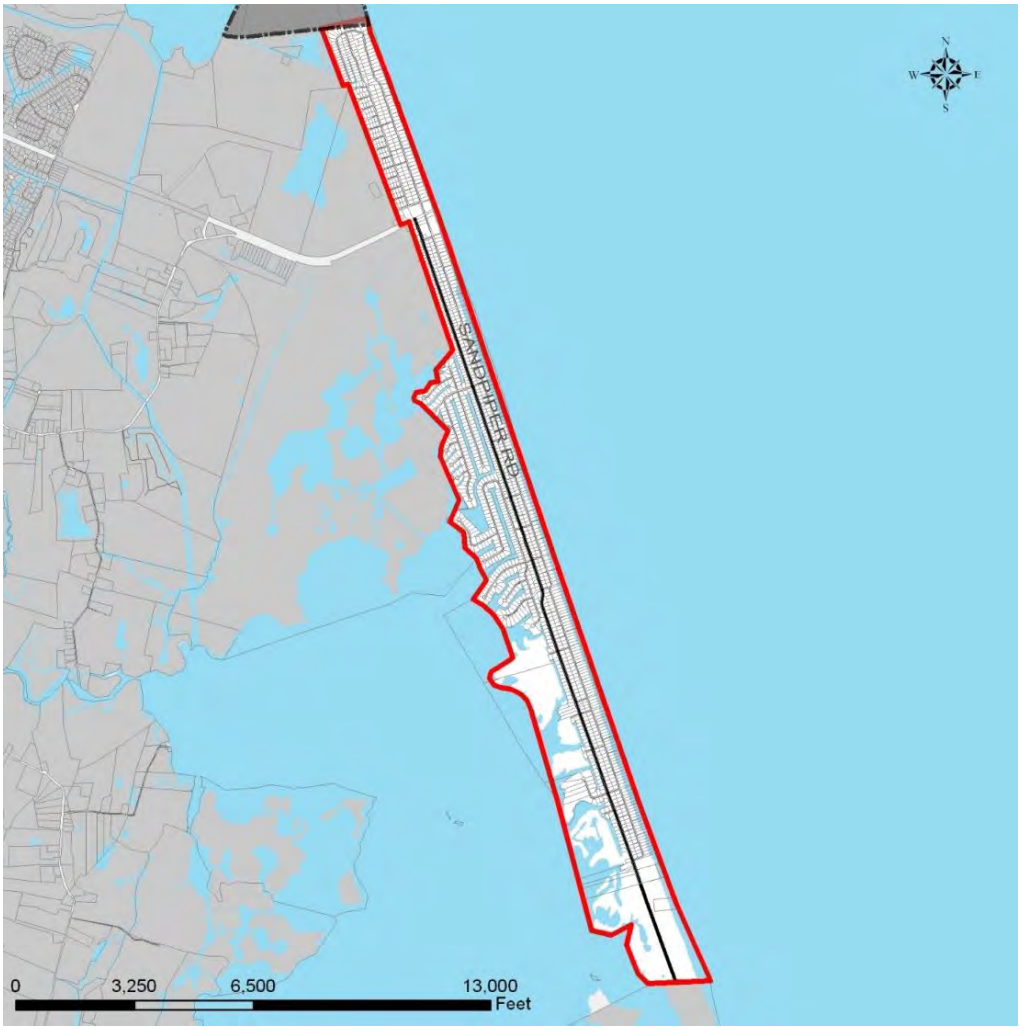
The Sentara Virginia Beach General Hospital anchors a major medical complex along First Colonial Road from Mill Dam Road south to Republic Road. The area includes medical offices, rehabilitation centers, senior housing, and a good mix of non-medical uses such as banks, general offices, places of worship and other neighborhood based services. Hampton Roads Transit service is also provided to this area.

RECOMMENDATIONS

- Priority should be given to infill or redevelopment proposals that complement the area's medical and health care activities.
- Because of the supportive land use and transportation services, residential and support uses that serve the needs of older adults are appropriate for this area.
- New development should include access management and cross-access between parcels to minimize impacts to First Colonial Road.

Sentara Virginia Beach General Hospital

SFA 6 - SANDBRIDGE



DESCRIPTION

The Sandbridge community is a stable, low-density, single-family community with about 1,200 dwelling units. It is located on a barrier island and sandbar between the Atlantic Ocean and Back Bay that extends from the Navy's Dam Neck Fleet Combat Training Base on the north to False Cape State Park to the south. A mid-rise condominium complex is located in southern Sandbridge and similar uses have recently been added as part of the neighborhood commercial center at the northern entrance to this area. Many of the dwellings are rented to visitors who prefer a slower, quieter atmosphere than that experienced at the Oceanfront Resort Area. A trend of large single-family houses being used for large family or friend vacation gatherings has become an issue in recent years and could become a destabilizing influence.

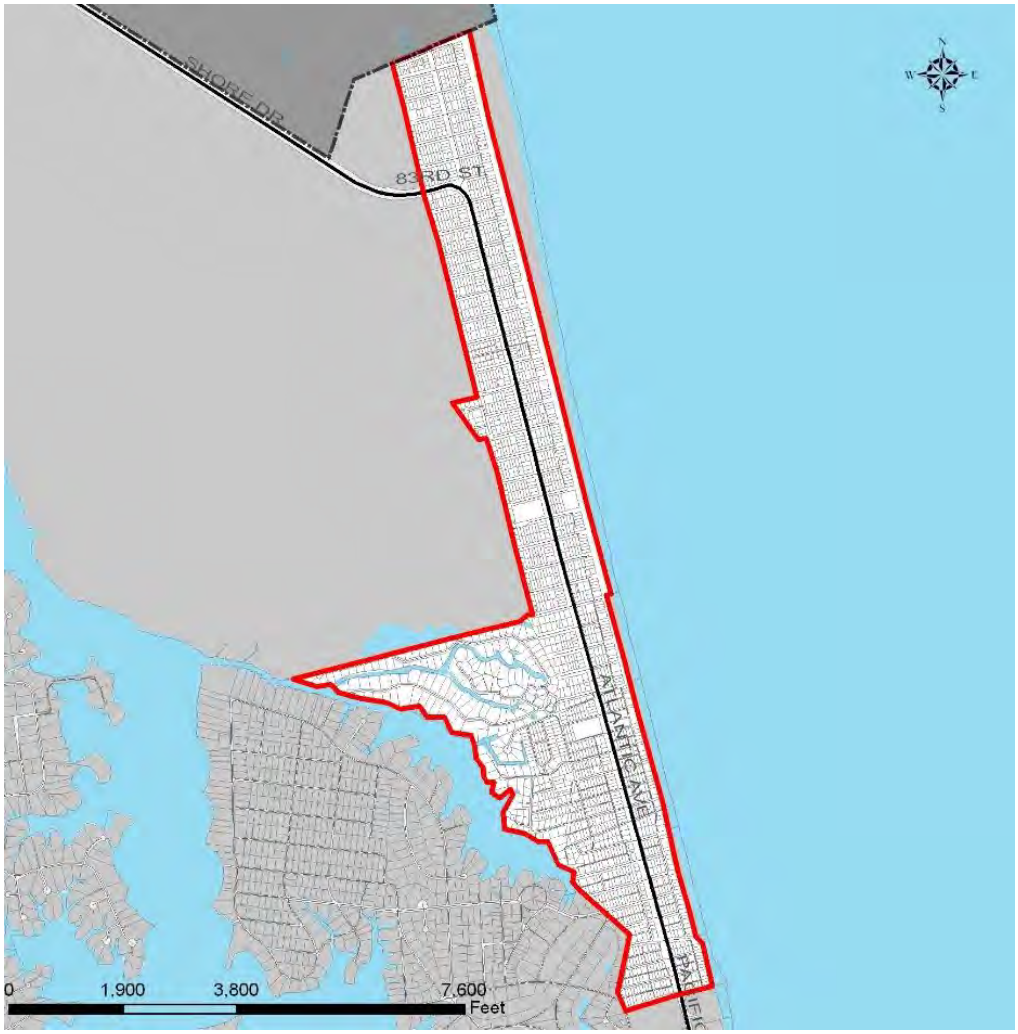
RECOMMENDATIONS

It is the policy of the City to retain the existing, low density neighborhood character of Sandbridge. The following land use recommendations apply to this area:

- Limited commercial uses may be added provided the type and extent of such uses are scaled to serve only the Sandbridge neighborhood and that the site and building designs are of high quality and consistent with physical characteristics of the neighborhood.
- Where opportunities present themselves, consider placing overhead utilities underground.
- Additional public parking and day use facilities should be provided to serve day visitors.
- Land uses in the Sandbridge community should be compatible with the environmental objectives of the Back Bay National Wildlife Refuge.
- The City and US Navy should continue their long-standing arrangement of providing, when necessary, an emergency public evacuation route from Sandpiper Road north through NAS Oceana Dam Neck Annex to Dam Neck Road.

Gateway to Sandbridge Beach resort community

SFA 7 - NORTH END



DESCRIPTION

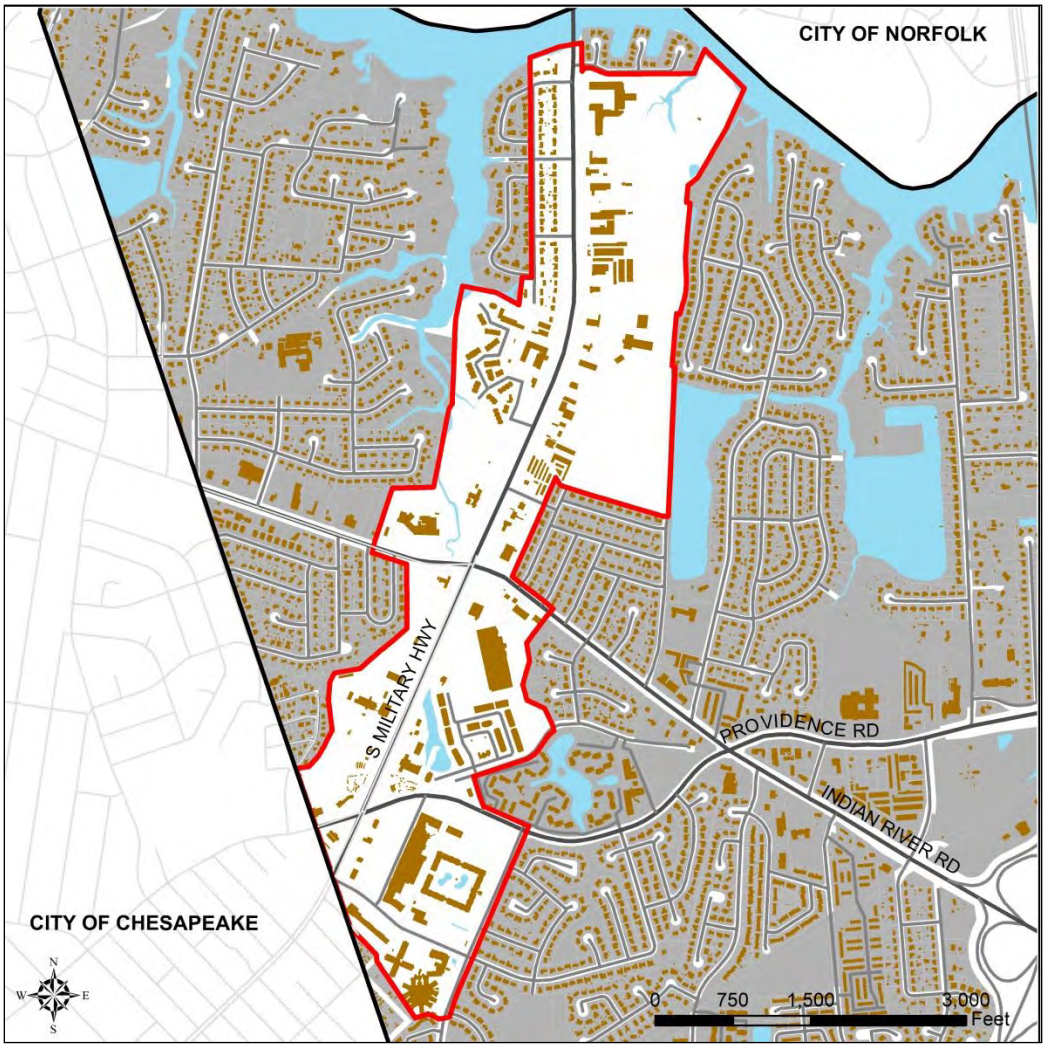
The North End, located on both sides of Atlantic Avenue from 42nd Street to 89th Street, is characterized by a compact arrangement of single-family and duplex dwelling units with much of the land zoned Residential Resort District (R-5R). The headquarters of Edgar Cayce's Association for Research and Enlightenment is a renowned landmark located at 67th and Atlantic Avenue. Another prominent building is the Wyndham Hotel located on the oceanfront at 57th Street. Moreover, the North End area is characterized by a relatively high density of single-family/duplex housing, high impervious surface coverage and problematic topographic conditions, all of which combine to create recurring stormwater drainage problems. The City has implemented drainage improvements in the North End area to help alleviate these situations. The neighborhoods in this area also experience parking and circulation problems. This area contains some significant historic structures.

Edgar Cayce's Association for Research and Enlightenment and adjacent private homes

RECOMMENDATIONS

- Parcel consolidation, density stabilization and the use of 'Best Management Practices' for stormwater control should be part of reconstruction efforts.
- Improvement and reconstruction should use porous materials for driveways, walkways and other similar surfaces, wherever feasible, to achieve a net reduction of impervious coverage.
- Attractive and high quality materials capable of withstanding severe weather events should be used.
- It is the policy of the city to preserve designated historic structures and efforts to retain these resources should be accomplished in a responsible and innovative manner.

SFA 8 - MILITARY HIGHWAY CORRIDOR



DESCRIPTION

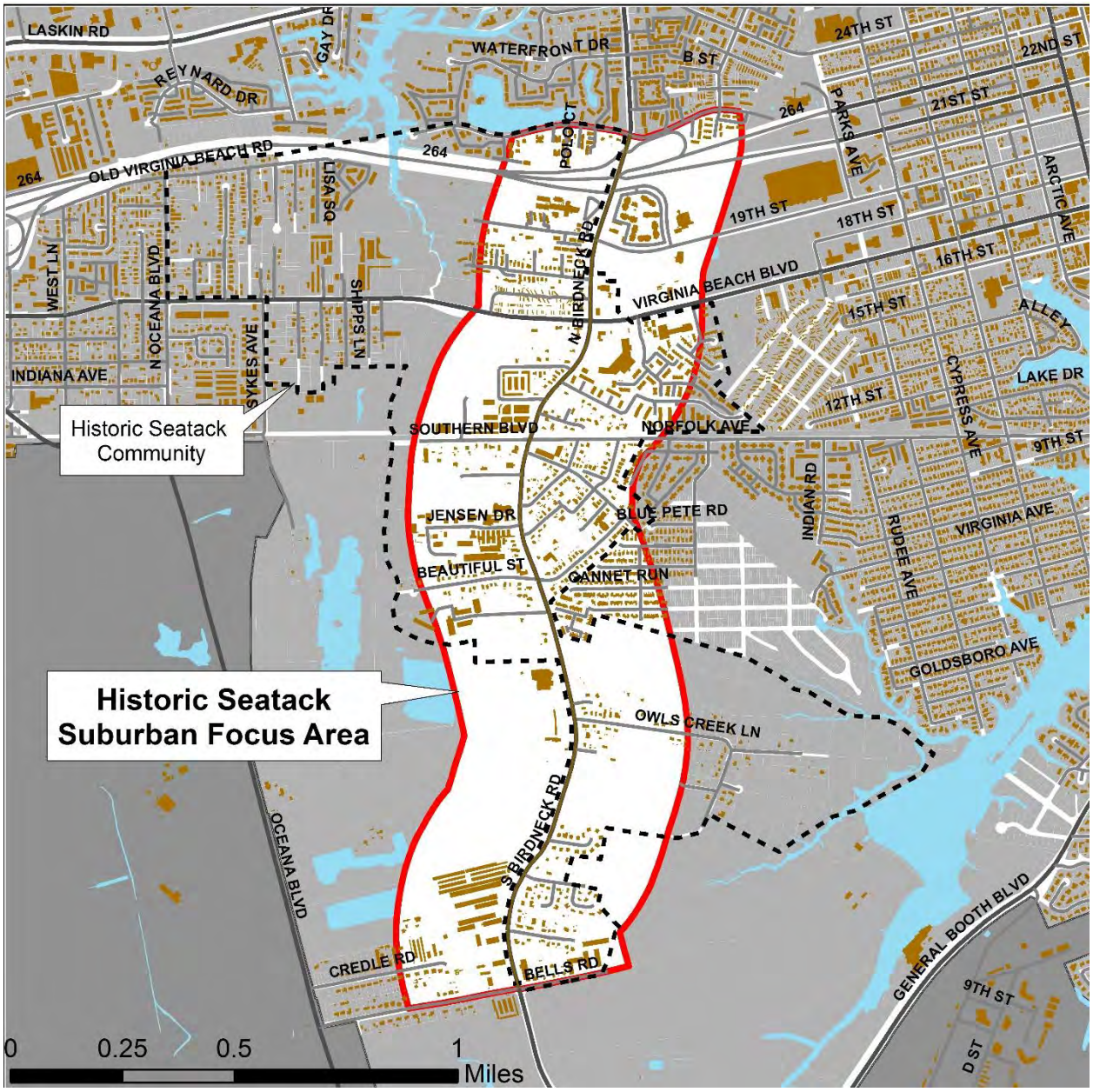
The general pattern of land uses along this one and one half mile corridor has remained essentially unchanged for decades. To the west is a low to medium density residential area and to the east are light industrial uses including auto and truck sales, rentals, and repairs, outdoor storage, and warehousing. Behind this industrial strip of land are Riverton and Lakeville Estates, both low-density, single-family residential neighborhoods. The Jonathan Cove neighborhood is located on the Elizabeth River north of the industrial area. An established neighborhood, West View Village, is located north of Indian River Road and west of the industrial uses on Military Highway. The land along Military Highway south of Indian River Road is used and zoned for commercial purposes.

RECOMMENDATIONS

- Replace the industrial activities with more compatible uses such as medium density residential, office, hotel, and institutional uses.
- Any change of land use in this corridor located near or adjacent to existing stable neighborhoods must be compatible uses and employ appropriate buffering features to protect the quality of life of those residential areas.
- The number of access points along Military Highway should be significantly reduced. Greater reliance on access management, inter-parcel access, and shared parking between uses is strongly recommended.
- New and redeveloped uses should improve the aesthetic of this corridor through high quality building design, signage and landscaping.
- All major land use changes considered for this area should be coordinated with the Cities of Chesapeake and Norfolk.

Intersection of Military Highway and Providence Road (looking north) [photo ©2016 Google Earth]

SFA 9 - HISTORIC SEATACK SFA & HISTORIC SEATACK COMMUNITY



DESCRIPTION

The Historic Seatack community, located in the City's Oceanfront Resort Area, is thought to be the oldest African-American settlement in Virginia and possibly in the United States. Outlined by the dashed black line on the above map, it is generally centered on the Birdneck Road corridor between Old Virginia Beach Road and Bells Road, on Virginia Beach Boulevard between West Lane and the convention center area, and along Southern Boulevard/Norfolk Avenue, and includes the area of Atlantic Park. It is bounded on the east by Lake Rudee, Owls Creek, and the Marshview Park area and on the west by the Oceana Gardens Neighborhood and the industrial and residential areas just east of NAS Oceana. The original settlement, which was once much larger extending to the present day Virginia Beach oceanfront, was formed by free men and dates back to the late 1700s to early 1800s. The area eventually took its name from the words "Sea Attack," based on British warship cannons positioned off the Virginia Beach shoreline that fired inland during the War of 1812. A more detailed accounting of the Seatack community's history is located in the Technical Report.

Seatack is an integral part of the Resort Area and, while primarily a residential community with supporting religious institutions and public facilities, such as a neighborhood park and recreation center, it also includes some businesses and light industry. With the improvement of Birdneck Road, this area is now well-served by a strategically located transportation corridor.

Much of the SFA is constrained by the Special Flood Hazard Area, is owned by the Federal Government or has Navy restrictive easements, is impacted by military aircraft accident potential zones (APZ-1 and APZ-2) and the highest noise zones (70 – 75 dB DNL and greater than 75 dB DNL). Per market trends and the requirements of Article 18, Special Regulations in Air Installations Compatible Use Zones (AICUZ) Overlay, new development and redevelopment of property within the SFA has occurred with uses compatible with flight operations at nearby NAS Oceana. In some cases, this development activity has altered the character of this historic community.

The SFA is in a flat, low-lying area in proximity to waterways and wetland areas in the Lynnhaven River system and the Owls Creek watershed. Drainage issues and recurrent flooding, especially associated with new development, have been observed which has, in some cases, negatively impacted existing residential areas.

There are several significant historic and cultural landmarks in this SFA that are important to the history and progress of the community. They should be recognized and/or protected as local historic or cultural landmarks. There may be opportunities to place historical markers at some of these sites and/or have them included on the Virginia Beach Historic Register through nomination by the property owners.

The recommendations for the Historic Seatack SFA are found below and are focused on the properties encompassed by the solid red line on the above map.

RECOMMENDATIONS

1. All new development, redevelopment and additions to structures should adhere to the City Zoning Ordinance requirements established in Article 18, Special Regulations in Air Installations Compatible Use Zones (AICUZ) Overlay.

2. All new development, redevelopment and additions to structures, will, as required, adhere to the requirements of Code of Virginia Beach, Appendix I, Airport Noise Attenuation and Safety Ordinance.

3. New development should respect the historic settlement of this area and should be compatible with the neighborhood. Significant landscape screening buffers should be established between existing residential areas and new non-residential development to mitigate adverse visual and noise impacts.

4. A careful mix of compatible land uses should be maintained where they currently exist and should be encouraged as new land uses are proposed so as to contribute to the day-to-day life of community residents.

5. Uses incompatible with existing residential should be discouraged to minimize impact to adjacent residential neighborhoods.

6. Building design should be visually interesting, encourage greater social interaction, and provide a memorable character.

7. Neighborhood identification signs should be installed at neighborhood entrances/gateways.

8. Recognition of historic and cultural landmarks and sites should be encouraged by nomination to the Virginia Beach Historical Register or and/or by the installation of interpretive historic site markers.

9. In partnership with and guidance from the Seatack Community, explore the potential benefits and regulatory impacts of delineation and adoption of a local Historic and Cultural District, if desired by the community and property owners.

10. All new development should be designed such that site drainage and stormwater management does not negatively impact adjacent parcels.

11. Maintain stormwater facilities and encourage the retrofit of existing drainage system problem areas.

12. New development, redevelopment, and site improvements should be encouraged to use porous materials for driveways, walkways and other similar surfaces, wherever feasible, to achieve a net reduction in impervious coverage.

13. Enhance landscaping in the Birdneck Road medians where there are opportunities to do so.

14. The Virginia Aquarium and City's Marshview Park improvement projects should provide education and recreation opportunities for Seatack residents through neighborhood outreach programs.

15. New development and public facilities improvements should accommodate multiple modes of transportation (e.g. pedestrians, bicyclists, and drivers) and accessibility needs.

AGENDA FOR FUTURE ACTION RECOMMENDATIONS: Suburban Area

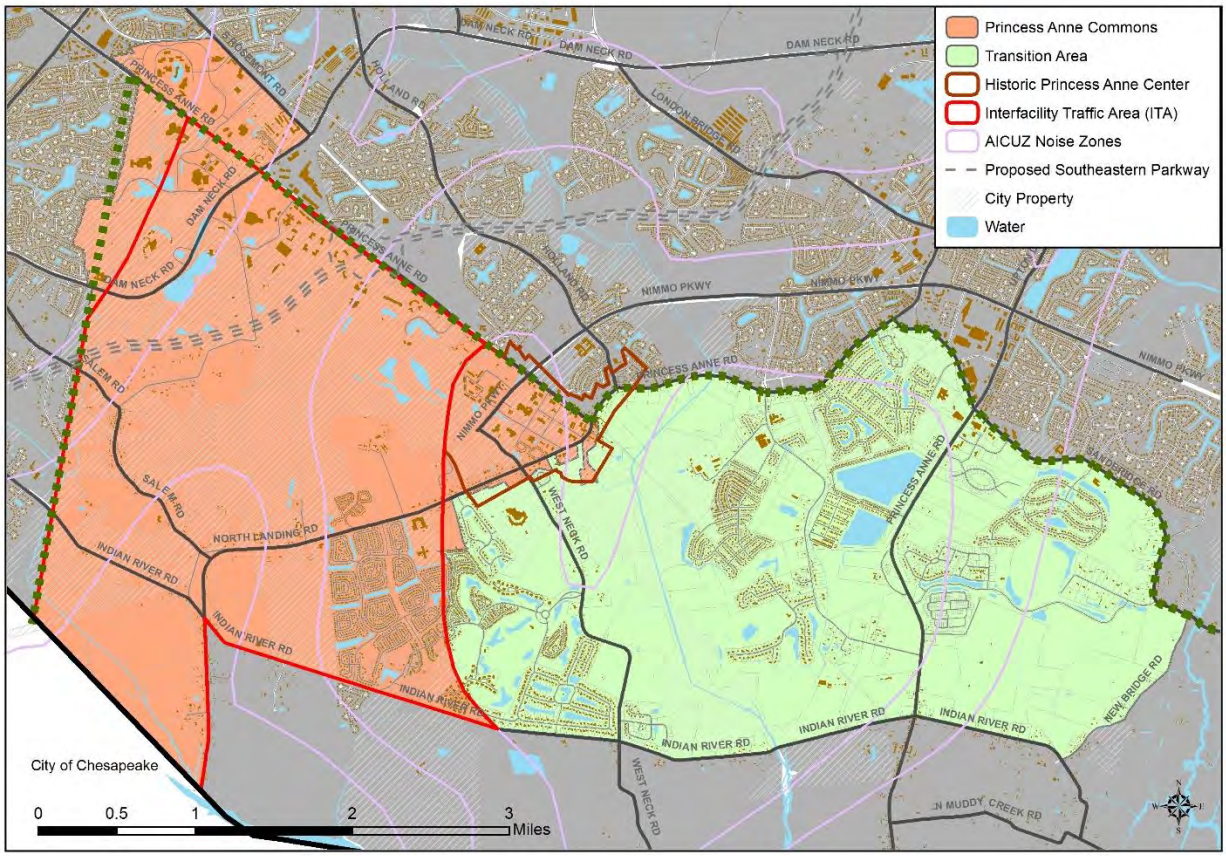
- Develop infill development guidelines as a component of the "Special Area Development Guidelines: Suburban Area" in the Reference Handbook.
- Develop tools to encourage new investment in declining commercial centers.
- Develop tools to assist distressed property owner associations with the preservation and maintenance of neighborhood parks and open spaces.
- Revise the Suburban Area section of the Comprehensive Plan as appropriate when sea level rise and recurrent flooding policies are developed and/or adopted by the City Council.
- To ensure that the function of Princess Anne Road is not reduced due to numerous access points within Suburban Focus Area 2.1 (North Courthouse), the City should construct all or a portion of at least two lanes of London Bridge/Drakesmile Extended.
- Study the area between Holly Road and Pacific Avenue, north of 32nd Street to 42nd Street (the southern boundary of North End SFA) to determine need for infill development and redevelopment policies and design guidelines.

1.4 - PRINCESS ANNE COMMONS & TRANSITION AREA

INTRODUCTION

Princess Anne Commons and the Transition Area are strategically located below the "Green Line," between the Suburban Area of the City to the north and the Rural Area to the south. This area is an important component of the City's overall smart growth land use planning strategy. The "Green Line" is the boundary between the more densely populated and higher intensity urban and suburban land use areas of the City, which are intended to be served by a full range of public infrastructure and services, and the less-populated lower density, recreational, and rural areas, which are characterized by an abundance of natural resources, larger open spaces (including federal, state, and local parks), and the City's prime agricultural lands.

It is not the intent of the Comprehensive Plan that Princess Anne Commons or the Transition Area become part of the urbanized area north of the Green Line. It is also not intended that Princess Anne Commons, or the Transition Area be limited to the very low densities appropriate for Rural Area preservation.



PRINCESS ANNE COMMONS & TRANSITION AREA MAP

Natural Resources Planning and Protection

Princess Anne Commons and the Transition Area include natural resources and environmentally sensitive expanses that are designated as not only part of the Southern Watershed, but also are included in the *Green Sea Blueway and Greenway Management Plan*. The principal effects of this designation are presented below:

- *Southern Watershed Management Plan and Ordinance*

The Southern Watershed Management Plan was adopted as a part of this Comprehensive Plan in 2001 (www.vbgov.com/Planning) and is implemented by the Southern Rivers Watershed Management Ordinance. The ordinance is intended to protect, enhance, and restore the quality of waters within the Southern Watershed of the city. The ordinance applies to development of any lands within the Southern Watershed (North Landing River Watershed, Northwest River Watershed, the Small Coastal South Watershed, and the Back Bay Watershed) and any artificial alteration of the level or flow of any watercourse or impoundment of water, with exceptions as noted in Section 6 of the ordinance; and, agricultural lands/agricultural activities to the extent set forth in Section 10 of the ordinance. The ordinance establishes development performance standards. Furthermore, the developer of any land within the Southern Watershed shall, prior to undertaking any land-disturbing activity, submit a Southern Watershed Management Plan if such development is subject to the additional performance standards set forth in Section 7(e), which excludes single-family dwellings or duplexes separately built and not part of a subdivision.

- *Green Sea Blueway and Greenway Management Plan*

The *Green Sea Blueway and Greenway Management Plan (*www.vbgov.com/Planning), adopted in 2015, is a regional plan collaborated on by the City of Chesapeake and Currituck County, North Carolina. It is a conservation and management plan to protect the abundance of unique and diverse natural resources, open space lands, and potential recreational opportunities existing along three connected rivers – the North Landing River in Virginia Beach, the Albemarle and Chesapeake Canal in Chesapeake, and the Currituck Sound in Currituck County, North Carolina. The purpose of the plan is to develop a long-term management strategy that protects, conserves, and manages a unique system of natural resources, open space areas, and carefully-selected recreational uses that are sustainable. The primary focus of the plan is on the waterway as a regional resource with unlimited opportunities for stewardship and enjoyment that can be shared for future generations. The *Green Sea Blueway and Greenway Management Plan* is important to the context of the Princess Anne Commons Area because of its alignment with the Comprehensive Plan policies and similar plans adopted by reference established to accomplish the following: preserve cultural heritage; sustain agricultural production; preserve, protect, and promote the area's unique natural resources in a sustainable manner; improve stormwater management and floodplain protection; protect undisturbed open space land; provide low-impact recreational uses where opportunities exist; identify and protect wildlife corridors; manage invasive plant and animal species; and encourage and promote reasonable uses and activities that are complimentary to the character and integrity of the rural area for the use and enjoyment of future generations. The plan advocates the importance of the Princess Anne Commons Area and the need to retain its distinction and attributes not found in the City's Urban and Suburban Areas.

Southern Watershed Subject to "Special Drainage Considerations"

The Southern Watershed portion of the Princess Anne Commons and the Transition Area is subject to "special drainage considerations" (see Southern Watershed map, Chapter 1, Section 1.5 - Rural Area). Drainage in the Southern Watershed is highly impacted by the presence of high ground water, poorly draining soils, and high water surface elevations in downstream receiving waters. Therefore, it is incumbent upon the developer of any property in the Southern Watersheds to understand and evaluate these factors prior to undertaking the project and to properly account for these factors in the project design. Receiving waters in the Southern Watersheds are subject to tidal influences which can be exacerbated by winds. High ground water elevations and poorly draining soils can result in increased runoff, can limit the capacity of the stormwater conveyance systems, and can counter indicate the use of certain Best Management Practices, such as infiltration.

All of these effects must be fully considered and evaluated in the analysis and design of drainage systems in the Southern Watersheds. Accordingly, it is recommended that the developer has a preliminary drainage study prepared by a qualified professional engineer in advance of any request to approve a discretionary (versus by right) development that involves land disturbance in the Southern Watershed. The drainage study should fully and accurately evaluate the effects of the foregoing factors on the planned development and on upstream and downstream areas. The proposed drainage system for the planned development would provide positive drainage that meets City standards and does not result in flooding within the planned development or to upstream or downstream areas.

Indian River Road State Scenic Byway Designation

Indian River Road, which forms the southern boundary of both Princess Anne Commons and the Transition Area, is designated as a Virginia Byway as a part of the Virginia Byways program. The Byways program is managed by Virginia Department of Transportation (VDOT) in partnership with the Department of Conservation and Recreation (DCR). The Virginia Byways program recognizes roads that border areas of historical, natural, and recreational significance as a way to encourage exploration of interesting destinations in less traveled corridors.

The following subsections present general and specific-area policy recommendations for Princess Anne Commons and the Transition Area.

PRINCESS ANNE COMMONS

DESCRIPTION

Princess Anne Commons includes the Interfacility Traffic Area (ITA), as well as additional surrounding areas including the area north of the Green Line where Tidewater Community College, the Higher Education Center, and LifeNet are located, as well as most of the Princess Anne Historic and Cultural District to the east. Also, part of Princess Anne Commons and the ITA is the property owned by the City south of Indian River Road, formerly owned by Rock Church.

VISION

The Princess Anne Commons area of the City offers unique education, entertainment, recreation, habitat preservation, and quality economic development opportunities. It is a true jewel within Virginia Beach. The policies of this Comprehensive Plan have been designed to ensure that Princess Anne Commons continues to be a well-planned area.

City Hall located in the Municipal Center portion of the Princess Anne Commons Area

Amphitheater in North Princess Anne Commons Area

The vast majority of Princess Anne Commons is included in the Interfacility Traffic Area (ITA). The ITA is a product of the *Hampton Roads Joint Land Use Study* and the City's Oceana Land Use Conformity program. The ITA was created in 2005 to address land use compatibility issues associated with frequent overflights of military jets in this part of the City. The boundary of the ITA generally overlaps the area of Princess Anne Commons impacted by noise zones at or greater than 65 dB DNL. The planning policies affecting the ITA have been carefully written to achieve compliance with the provisions of the City's adopted Oceana Land Use Conformity program.

The entire ITA is subject to certain development limitations due to jet noise restrictions; therefore, the area has been carefully planned to achieve a coherent and compatible land use pattern. Of the roughly 6000 acres within this special area, less than half are developable due to the presence of water, wetlands, existing development or other constraints. The alignment for the Southeastern Parkway & Greenbelt traverses the northern portion of the ITA in a northeast to southwest direction.

Due to the incompatibility of residential uses in these high noise zones as well as it being undesirable to have new residential dwellings within the ITA, one of the principal effects of this is a reduction in residential density to what could be achieved by right with Agricultural zoning (one unit per 15 acres). A second effect was an increase in the area owned by the City of Virginia Beach, as the City and U.S.

Navy began a program of purchasing property voluntarily offered to the City. This program has led to ownership by the City of Virginia Beach of approximately half of the area. The City Council adopted the *Interfacility Traffic Area (ITA) and Vicinity* Plan as a component of this Comprehensive Plan to establish a vision for the use of the ITA as well as to ensure the ITA develops only with those uses compatible with the purposes of the Interfacility Traffic Area.

Interfacility Traffic Area (ITA) & Vicinity Master Plan

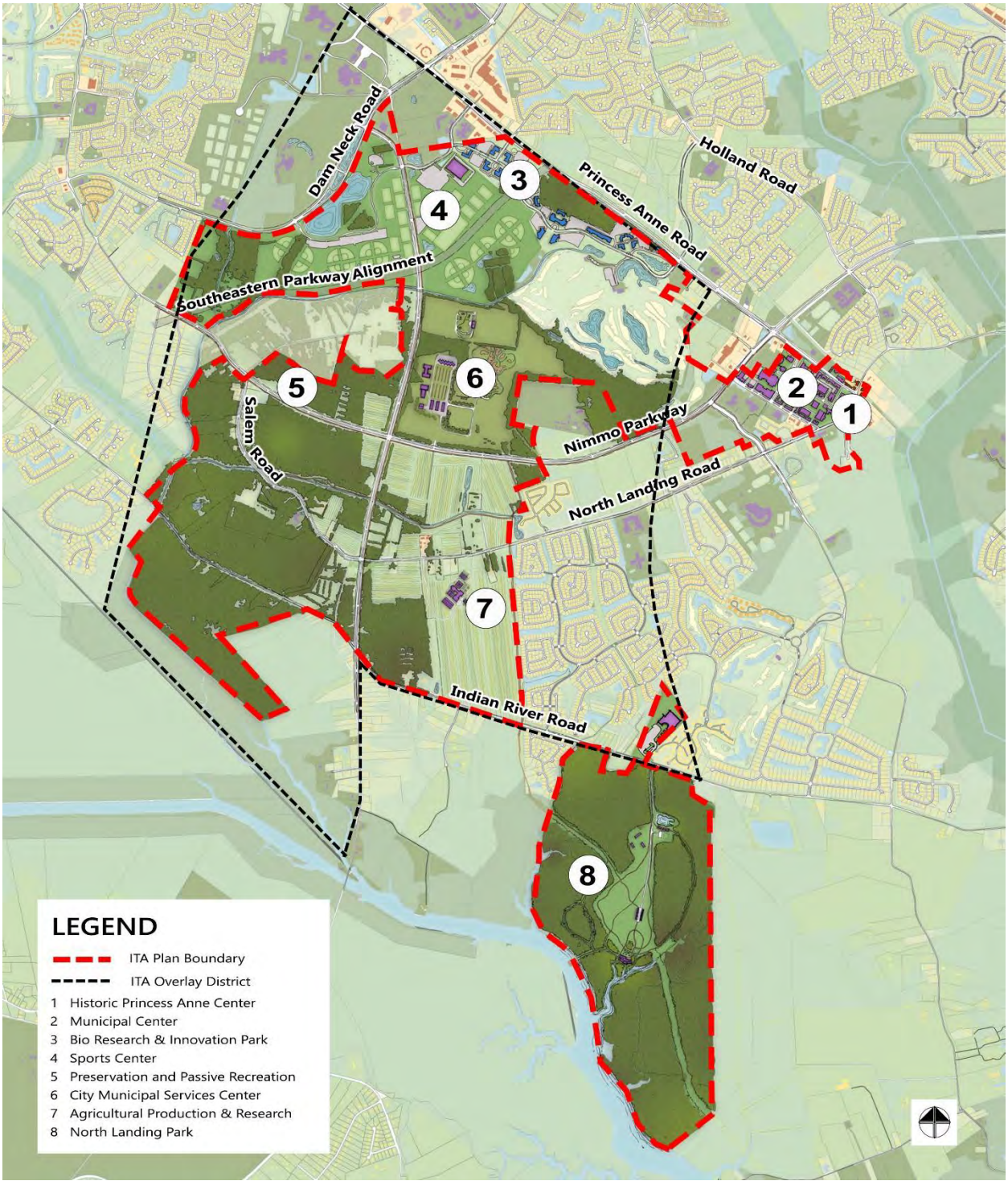
The vision for the ITA was established in 2011 with the adoption of the *ITA and Vicinity Master Plan*. The ITA Plan was prepared with effective community involvement to provide planning policy guidance in the areas of land use, transportation, environmental stewardship, infrastructure, public service delivery, economic vitality, AICUZ compatibility, and community design. During the five years after the adoption of the 2011 ITA Plan, there were changes in the area's characteristics that pointed to a need to update the plan to insure it continued to provide a realistic vision. In particular, the transition in the property ownership from private to public, with the resulting increase in the percentage of the ITA controlled by the City, offered opportunities that were not available in 2011. In 2016, work began to update the 2011 ITA Plan, and in 2017, the City Council adopted a revised version of the plan that sets out a vision based on realities and opportunities not available in 2011. Specific policies from this plan are provided later in this section.

The ITA Plan's vision framework continues to move the Princess Anne Commons area forward in a direction that reflects the area's history, is sensitive to the environment, and acknowledges existing assets already in place for those portions of this special area. Adopted land use patterns have now made this area more compatible with the operations of the airfields in the region.

The *Interfacility Traffic Area & Vicinity Master Plan* focuses on conservation and preservation of sensitive uses, amenities for residents, employment, municipal services, and recreation. Employment and research will be focused in the VBBio Innovation Park adjacent to the Virginia Beach National Golf Course. More dense development remains clustered along Princess Anne Road at the Municipal Center and North Princess Anne Commons. At the Municipal Center and Historic Princess Anne areas, as designated by the ITA Plan, residential uses outside of the AICUZ can be provided to create vibrant mixed-use districts where people can live, work, and recreate within walking distance to services and gathering spaces. The active recreation around Dam Neck Road can be expanded to include new types of recreation and sports not currently offered. Existing farmland provides opportunities for the conservation of valuable productive land in Virginia Beach, possibly evolving into a research farm. Special destinations could be developed that fit with the natural environment, including an agricultural research center, Wildlife Rehabilitation Center, environmental conservation center, and Municipal Services Facility. Enhancing natural features will allow improved stormwater management and flood controls. Throughout the area, trail and open space would connect the uses. Thoughtful implementation of this vision will position Princess Anne Commons and, thus, Virginia Beach as a leader in sustainable urban edge economic development.

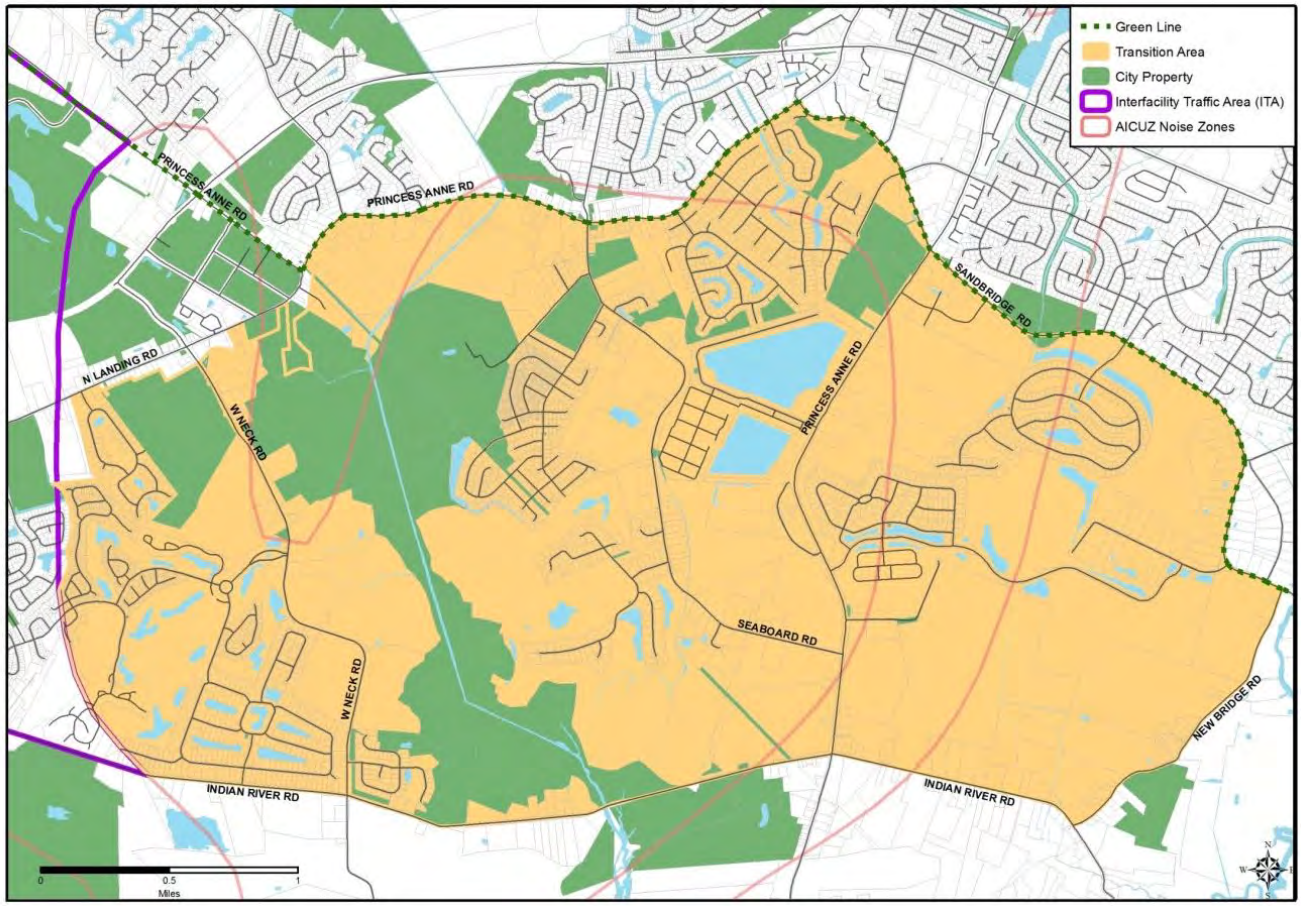
The northern portion of the area addressed in the *ITA and Vicinity Master Plan* has also been designated as "Special Economic Growth Area 4 (SEGA 4) - Princess Anne," recognizing the land development constraints and economic development opportunities associated with this area's location within a military aircraft overfly zone. Specific information and recommendations for SEGA 4 are provided in Chapter 2, Section 2.4 – Economic Vitality.

The recommendations of the *ITA and Vicinity Master Plan* are to be followed for the remaining portion of Princess Anne Commons south of SEGA 4. For those areas outside the boundary of the *ITA and Vicinity Master Plan* (see map below), land use will be as allowed by the existing zoning, as well as being consistent with the Interfacility Traffic Area (ITA) Overlay District regulations.



Interfacility Traffic Area & Vicinity Master Plan - Vision Concept (2017)

TRANSITION AREA



TRANSITION AREA LOCATOR MAP

DESCRIPTION

The Transition Area lies to the east of Princess Anne Commons. It consists of approximately 5,900 acres, bounded by Princess Anne and Sandbridge Roads along the 'Green Line' to the north, North Landing Road and the Princess Anne Commons area border to the west, Indian River Road to the south, and New Bridge Road to the east. The Transition Area is impacted by high noise AICUZ to a lesser extent than Princess Anne Commons and the ITA and, therefore, is more suitable for a limited amount of residential development. It is characterized by several high quality neighborhoods that include significant open space and recreational areas, including City park facilities, golf courses, public trails in roadside buffers, and equestrian centers. Commercial development is primarily located at major intersections. Some lands remain under cultivation or in minerals extraction. Approximately 30% of the Transition Area is City-owned parkland or contains soils that are defined by the City Zoning Ordinance as being undevelopable. The area is served primarily by rural roads, some of which are proposed to be improved over time, as indicated in the Master Transportation Plan. Indian River Road is designated as a "State Scenic Byway." Public utilities are intended to be extended through private development in a phased, orderly manner on a cost-participation basis. The western part of the Transition Area is bisected by the City-owned West Neck Creek Park corridor, a major natural corridor. The eastern part of the Transition Area, east of Princess Anne

Road, is prone to flooding from sheet flow, wind-driven tides, increasingly rising waters, and limited drainage infrastructure, according to farmers who cultivate the area. This is due, in part, to the existence of a topographic feature known as the "Pungo Ridge," one of the City's three primary north-south ridges of land suitable for cultivation that are separated by low-lying flats. The Pungo Ridge has elevations of 18-20 feet above mean sea level. In the Transition Area, the Pungo Ridge resembles a large "turtle back" with changes in elevations from 10-14 feet down to 2-4 feet. This change in elevation results in changes in soil types, including the presence of hydric soils, sometimes in just a very short distance. This natural landscape feature, coupled with the occurrence of a high water table, can severely limit development opportunities in this area. The eastern edge of the Transition Area is close to the headwaters of Back Bay and the Back Bay National Wildlife Refuge. Both the West Neck Creek Park corridor and Back Bay help define the Transition Area and provide unparalleled amenities for those who reside in or visit the area for recreational purposes.

VISION

Paddling along West Neck Creek Natural Area

The vision framework for the Transition Area is as a distinct place with inherently unique environmental characteristics and constraints that must be carefully considered when designing for development. Development policies for the Transition Area are not intended to be a continuation of the higher density development patterns and form found in the Suburban and Urban Areas to the north. Rather, they enable a more limited type of development, with its own development standards suitable to the character of the Transition Area, where greater integration of natural resources and more open space is planned to respect and protect the unique natural character of the area and to enable a true transition into the Rural Area to the south.

Since the Transition Area is meant to serve as a buffer between the City's Suburban and Rural Areas, it should provide an apparent visual shift from suburban development character and form to rural development character and form as one travels from north to south. Therefore, development in the Transition Area should reflect a noticeable transitional pattern with contiguous and unified open space throughout, also in keeping with the accompanying *Transition Area Design Guidelines*, which are adopted by reference as part of this Comprehensive Plan and are available in the online document library at www.vbgov.com/Planning. These guidelines articulate a high quality, 'Rural Transitional' design theme, unique to the Transition Area vision.

The Transition Area policies and *Transition Area Design Guidelines* also support the *Virginia Beach Outdoors Plan* by emphasizing trail connectivity and preservation of open space, waterways, and other natural resources. The policies for the Transition Area support the Urban and Suburban Areas growth pattern goals and redevelopment opportunities in the area to the north above the Green Line, and the Rural Area preservation goals affecting the area to the south, below Indian River Road.

The Transition Area policies also support the goals of the *Southern Watershed Area Management Plan,* and the City's AICUZ zoning regulations. Furthermore, the policies support an appropriate mix, intensity, and scale of high quality, residential and non-residential development, while sustaining our agricultural industry in this area and to the south. All open space areas should be connected by trails to provide for a continuous open space system throughout the Transition Area. All development in the Transition Area should be considered relative to its impact on current and planned infrastructure and to other discretionary development proposals.

RECOMMENDATIONS

To enable the vision framework and policies for the Transition Area, all new development and redevelopment in the Transition Area should adhere to the following general recommendations and the *Transition Area Design Guidelines*.

Development & Uses:

- Development should be creative and of high quality.
- Uses should be limited to low-impact, low-density residential, low-intensity non-residential, open space and recreational, and agricultural, including row-crop farming and equestrian uses.
- Uses should necessitate limited roadway improvements (e.g., turn lanes).
- For residential development, a maximum average calculated density of up to and no more than one unit per developable acre can be earned through demonstrated conformance with the *Transition Area Design Guidelines*.
- Minimum lot sizes of 15,000 square feet are preferred. Lot sizes less than 15,000 square feet are appropriate if additional active open space location recommendations as set forth in the *Transition Area Design Guidelines* are incorporated into the site design.
- Non-residential uses should be "neighborhood-serving." These are uses that are scaled to support the needs of nearby residential neighborhoods, users of the Transition Area's open space and recreational areas, and agricultural users.
- Non-residential uses should be located at major roadway intersections or, if as part of a mixed use plan of development, located at the entrance to the neighborhood or interior to the neighborhood around a central green or open space.
- Development within floodplains is strongly discouraged.
- Ensure all development proposals conform to the provisions of the Oceana Land Use Conformity Program and AICUZ provisions in the Zoning Ordinance, the Southern Watersheds Area Management Plan and Ordinance, and all other applicable development regulations.

Design Principles:

- Design with nature using low-impact development techniques and creative design to minimize impervious surfaces, protect natural resource areas and open spaces, address stormwater management requirements, and optimize site amenities.
- Open space should be deliberately included and designed as a site amenity in all development.
- Stormwater management techniques should be designed as site amenities and retention areas and should not be isolated behind buildings.
- Protect historic structures and sites and incorporate them into site design either through preservation or adaptive reuse. Such extant structures and sites are reminders of the rural heritage and character of this part of the City.
- Residential and non-residential use design should reflect a "Rural Transitional" architectural theme (refer to the *Transition Area Design Guidelines* for examples).
- When developing in proximity to a designated "Special Place" (e.g., Municipal Center, Historic Nimmo Church, Pungo Village, and the Ecological Awareness Center at Back Bay), incorporate design elements that are contextually relevant to that Place to ensure compatibility (refer to *Transition Area Design Guidelines* for "Special Place" locations and descriptions).
- For residential development, parcel consolidation is encouraged to enable larger development sites that can be designed creatively.
- Non-residential site design should focus on providing an attractive streetscape view into the site from the roadway.
- Parking areas should be situated behind or on the side of buildings and should incorporate landscaping throughout the parking areas to enable bio-retention of stormwater runoff.
- Signage should be complementary in scale and style to the use, constructed of high quality and long-lasting materials, and externally-illuminated.
- Fencing should be of an open style to create or maintain a sense of open space throughout the Transition Area.

Example of residential development in the Transition Area – Matthews Green Neighborhood

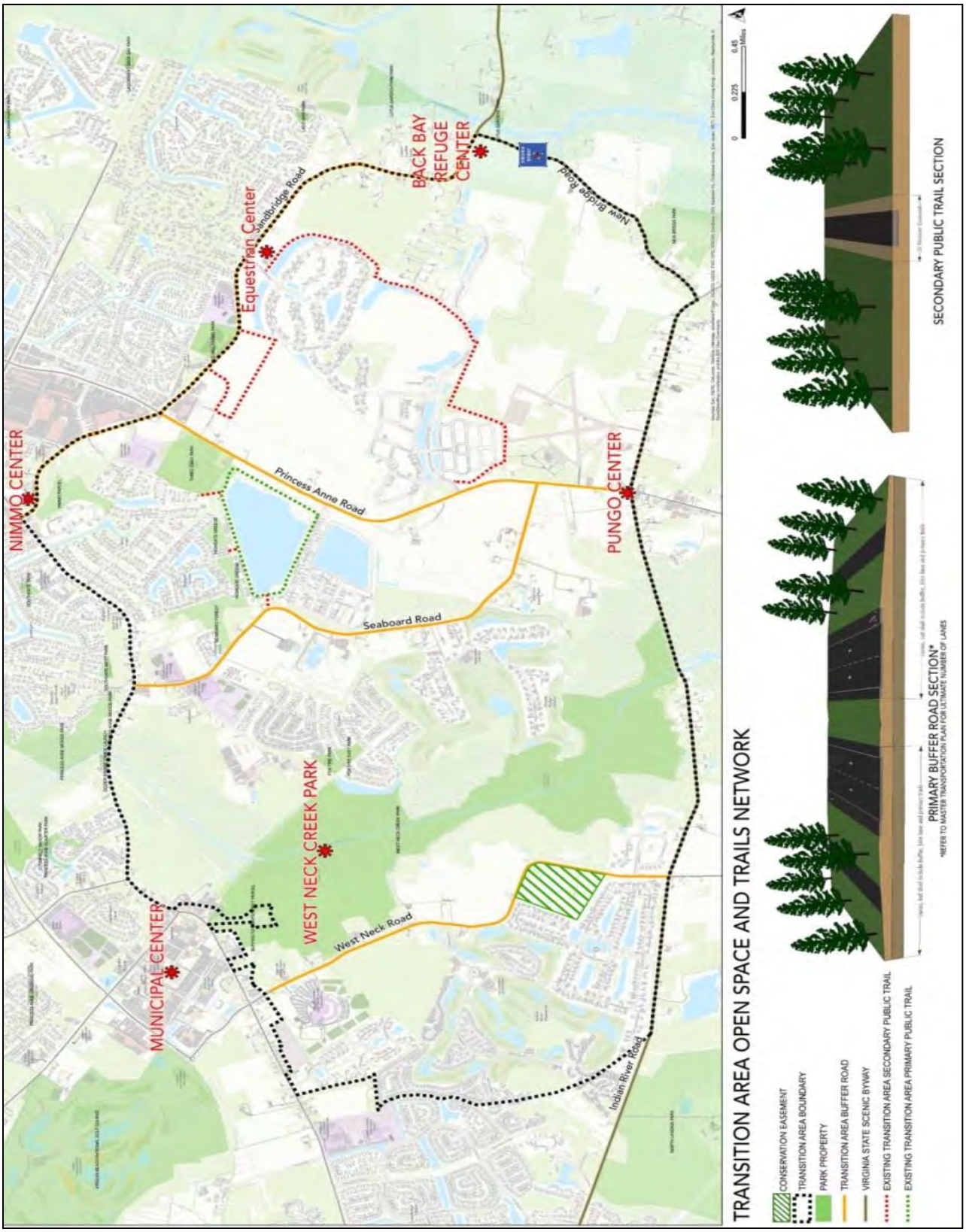
Context-sensitive neighborhood commercial use near Nimmo Church

Open Space and Recreation:

Open space in Heritage Park Neighborhood

- For residential development, 50% of the developable area should be designed to provide a balance of both "active" and "passive" open space areas, which should be clearly designated, respectively, on the development plan.
- For non-residential development, 30% of the developable area of the subject property should be designed as open space and clearly designated on the development plan. Such open space should not be limited to stormwater management facilities.
- A well-planned system of multi-purpose public trails should be included in all development to provide non-vehicular mobility, recreational opportunities, and connectivity to the larger Transition Area Open Space and Trails Network. A balance of both "primary" and "secondary" trails should be provided and clearly designated on the development plan.
- Open space and recreational areas, trailway design, and connections should be designed to help implement the Transition Area Open Space and Trails Network and the goals of the *City of Virginia Beach Outdoors Plan.* Roadway buffers should be designated along selected roadways (as shown on the "Transition Area Open Space and Trails Network" plan/map below and in the *Transition Area Design Guidelines)*, containing both landscaping and a primary public multi-purpose trail within a public access easement, to provide for screening of development and to promote trail connectivity throughout the Transition Area. These buffers may be used for open space and residential density calculations.

Roadway buffer with primary trail along Seaboard Road


TRANSITION AREA OPEN SPACE AND TRAILS NETWORK
CONSERVATION EASEMENT
TRANSITION AREA BOUNDARY
PARK PROPERTY
TRANSITION AREA BUFFER ROAD
VIRGINIA STATE SCENIC BYWAY
EXISTING TRANSITION AREA SECONDARY PUBLIC TRAIL
EXISTING TRANSITION AREA PRIMARY PUBLIC TRAIL
PRIMARY BUFFER ROAD SECTION*
*REFER TO MASTER TRANSPORTATION PLAN FOR ULTIMATE NUMBER OF LANES
SECONDARY PUBLIC TRAIL SECTION
NIMMO CENTER
MUNICIPAL CENTER
WEST NECK CREEK PARK
PUNGO CENTER
BACK BAY REFUGE CENTER
Equestrian Center
Princess Anne Road
Seaboard Road
West Neck Road
Indian River Road
Sandbridge Road
New Bridge Road
0
0.225
0.45
Miles

Infrastructure:

- All development in the Transition Area should be considered relative to its impact on current and planned public infrastructure. Connectivity to existing public facilities infrastructure, also known as "Public Infrastructure," should be required for all discretionary development.
- Many roads in the Transition Area are presently 2-lane rural roads. Improvements are contingent on necessity and sufficient capital funding." Likewise, consideration should include roadway design safety and capacity for future relevant Capital Improvements Plan (CIP) projects.
- Connection to public sanitary sewer and water is preferred. However, if a parcel is proposed to be served by a private septic system or an alternative on-site sewage system (AOSS), ensure that the lot area is of sufficient size and soil suitability to install a replacement system in case of original system failure.
- Public utilities service extension should be incremental and in an orderly fashion.
- Development should respect the Master Transportation Plan by providing reservations or dedications for planned road improvements.
- Incorporate stormwater management into project design according to state stormwater management regulations. Use a systems approach to stormwater management, incorporating a range of stormwater management techniques. Wherever feasible, consider multi-site or regional stormwater management facilities and design them as site amenities.

AGENDA FOR FUTURE ACTION RECOMMENDATIONS: Transition Area

- Explore the feasibility of expanding the Agricultural Reserve Program to include properties located in the Transition Area. This could better enable the desired "transition" along the border of the Transition Area immediately adjacent to the City's Rural Area, as per the above vision statement for the Transition Area.

1.5 - RURAL AREA

INTRODUCTION

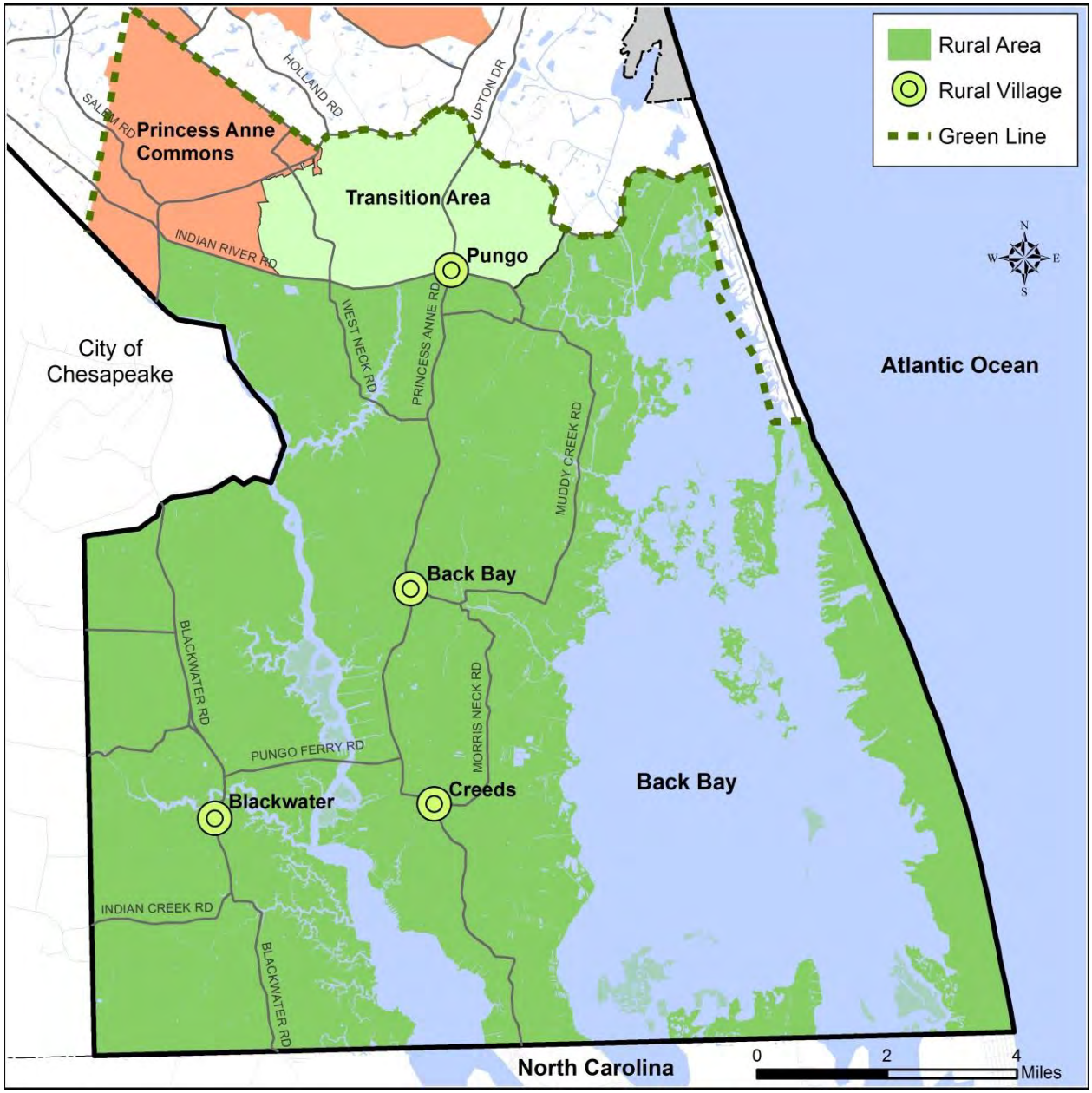
Transplanting strawberry plants (courtesy Cromwell's Produce)

The Rural Area comprises nearly 145 square miles of land, wetlands and water-- close to half of the City's total area. It lies south of Indian River Road, from North Landing Road and the City of Chesapeake on the west, to the area east of New Bridge Road and south of Sandbridge Road to, but not including, Sandbridge, and extends south to the North Carolina border. It is a treasure in agricultural industry and economic vitality, rural heritage, and wildlife habitat. In its current state, it functions as critical part of our city today. The Rural Area land use policies assist in keeping taxes low and assuring continued local, state, and national food production. Furthermore, the Rural Area adds to the diversity of the City's character. It provides a unique component to the City's tourist industry, while maintaining the rural community so essential to the overall quality of life for Virginia Beach residents.

The physical character of the Rural Area is low, flat land with wide floodplains, ditch drainage, and a high water table. The area east of Princess Anne Road is prone to flooding from sheet flow, increasingly rising waters, and limited drainage infrastructure. This is due, in part, to the existence of a topographic feature known as the "Pungo Ridge," one of the City's three primary north-south ridges of land suitable for cultivation that are separated by low-lying flats. The Pungo Ridge resembles a large "turtle back" with changes in elevations from 10-20 feet above mean sea level down to 2-4 feet. According to farmers who cultivate the area, this change in elevation results in changes in soil types, including the presence of hydric soils, sometimes in just a very short distance. This natural landscape feature, coupled with the occurrence of a high water table, can severely limit development opportunities in this area. The vast water bodies found here—the Northwest River, the North Landing River, and Back Bay— often produce wind-driven tidal flooding.

Typical rural roadway with ditch in Virginia Beach

Approximately 28,000 acres of land, or nearly 44 square miles, of the Rural Area is devoted to production agriculture, upland forest, and pasture. Wetland and water cover about 48,700 acres and an additional 9,700 acres is either privately owned or federal and state owned property used for environmental conservation purposes. Only about 3,200 acres of land in Rural Area is actually developed, comprised mostly of rural dwellings and a small amount of rural commercial uses. Roads serving the area are predominantly two-lane rural roadways with little to no shoulders and can be heavily traveled by large agricultural vehicles.



RURAL AREA LOCATOR MAP

There are several roadways in the Rural Area designated by the Commonwealth of Virginia as "Scenic Byways". The purpose of being designated a Virginia Byway is to offer travelers a side of the Commonwealth that is uncommon and revealing. Each byway leads to scenes of natural beauty and places of historical and social significance. The following roadways in the Rural Area can be found on the State Scenic Byways Map:

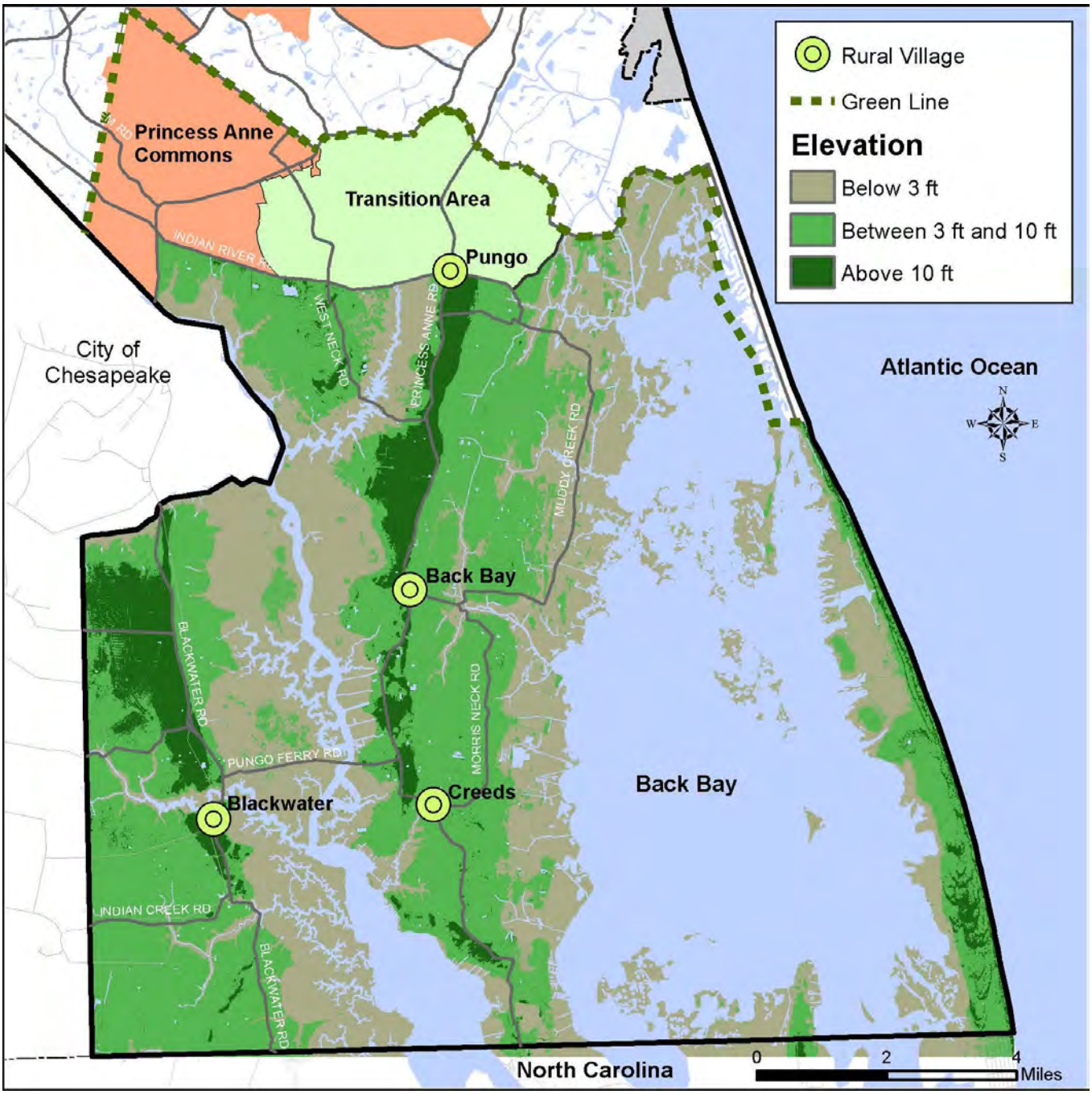
Scenic Byway Sign

- Indian River Road;
- New Bridge Road;
- Sandbridge Road;
- Muddy Creek Road;
- Nanney's Creek Road;
- Morris Neck Road;
- Princess Anne Road between Pungo Ferry Road and Morris Neck Road;
- Princess Anne Road between Morris Neck Road and the North Carolina border, and;
- Blackwater Road between Pungo Ferry Road and the North Carolina border.

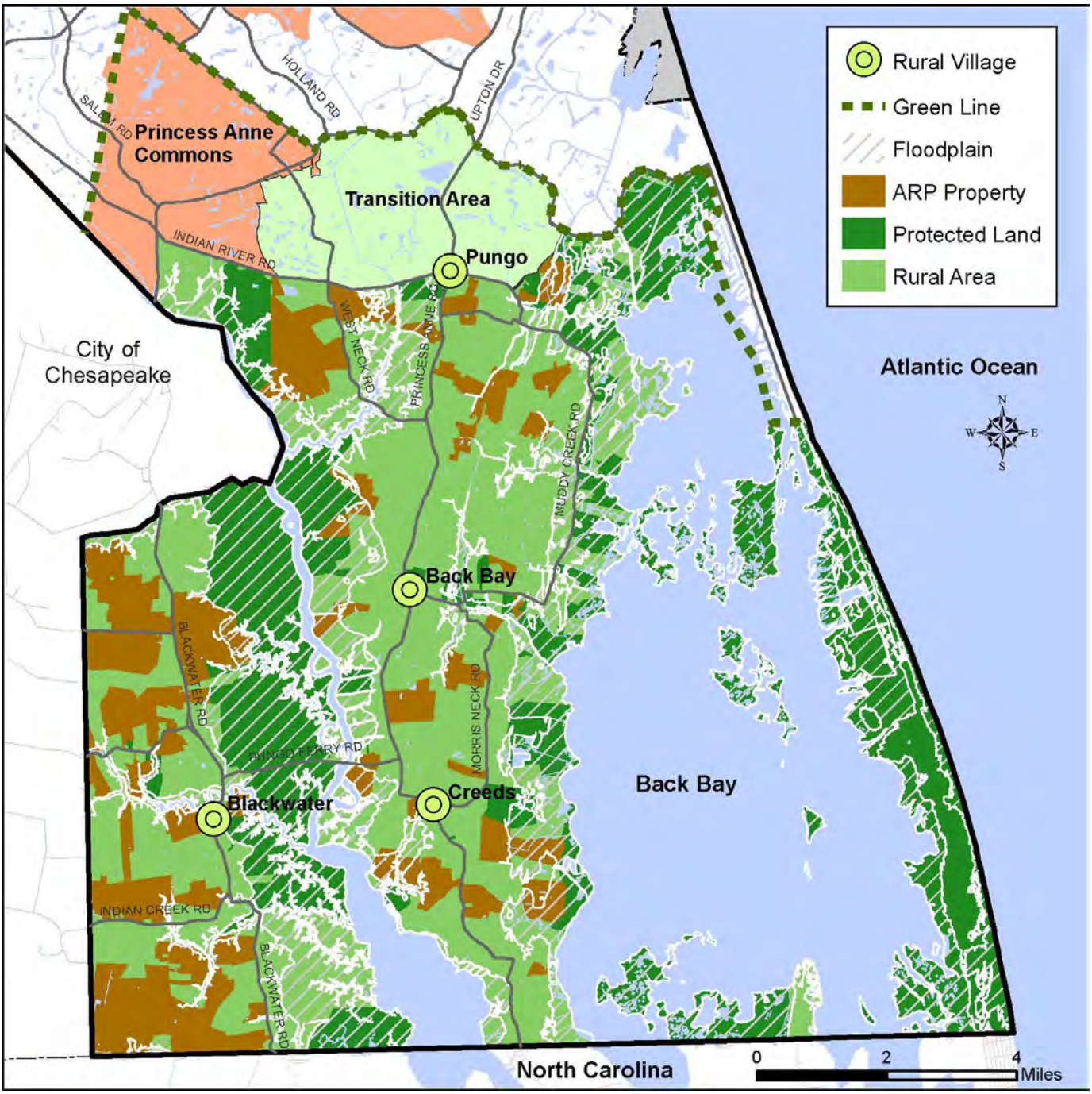
Most of the city's agricultural activity occurs in the Rural Area. Agriculture is the third leg in the City's predominantly three-legged local economy, accompanied by tourism and the military/defense-related industry. Agriculture has an annual economic impact of over 121 million dollars. As an engine helping to power the success of our local economy, the Rural Area is vital to the overall vision of Virginia Beach and Hampton Roads.

Hay bales ready for market (courtesy Cromwell's Produce)

The maps on pp. 1-123 and 1-125 illustrate land elevation in the Rural Area and the extent to which Rural Area lands are protected as conservation lands (federal, state, local or private), are enrolled in the City's Agricultural Reserve Program (ARP) or are located in floodplains.



RURAL LAND AREA ELEVATION MAP



RURAL AREA CONSERVATION AND PROTECTED LANDS MAP (INCLUDING FLOODPLAIN AREAS)

Rural Villages

Small Rural Villages-- Pungo, Back Bay, Creeds, and Blackwater-- have served as the Rural Area's historical business and community core areas. They range in size, character, and physical cohesiveness. They provide basic support retail and municipal facilities (e.g., fire/EMS stations, schools, libraries, and community centers) to the local community and greater Rural Area. The Rural Villages are described in more detail later in this chapter.

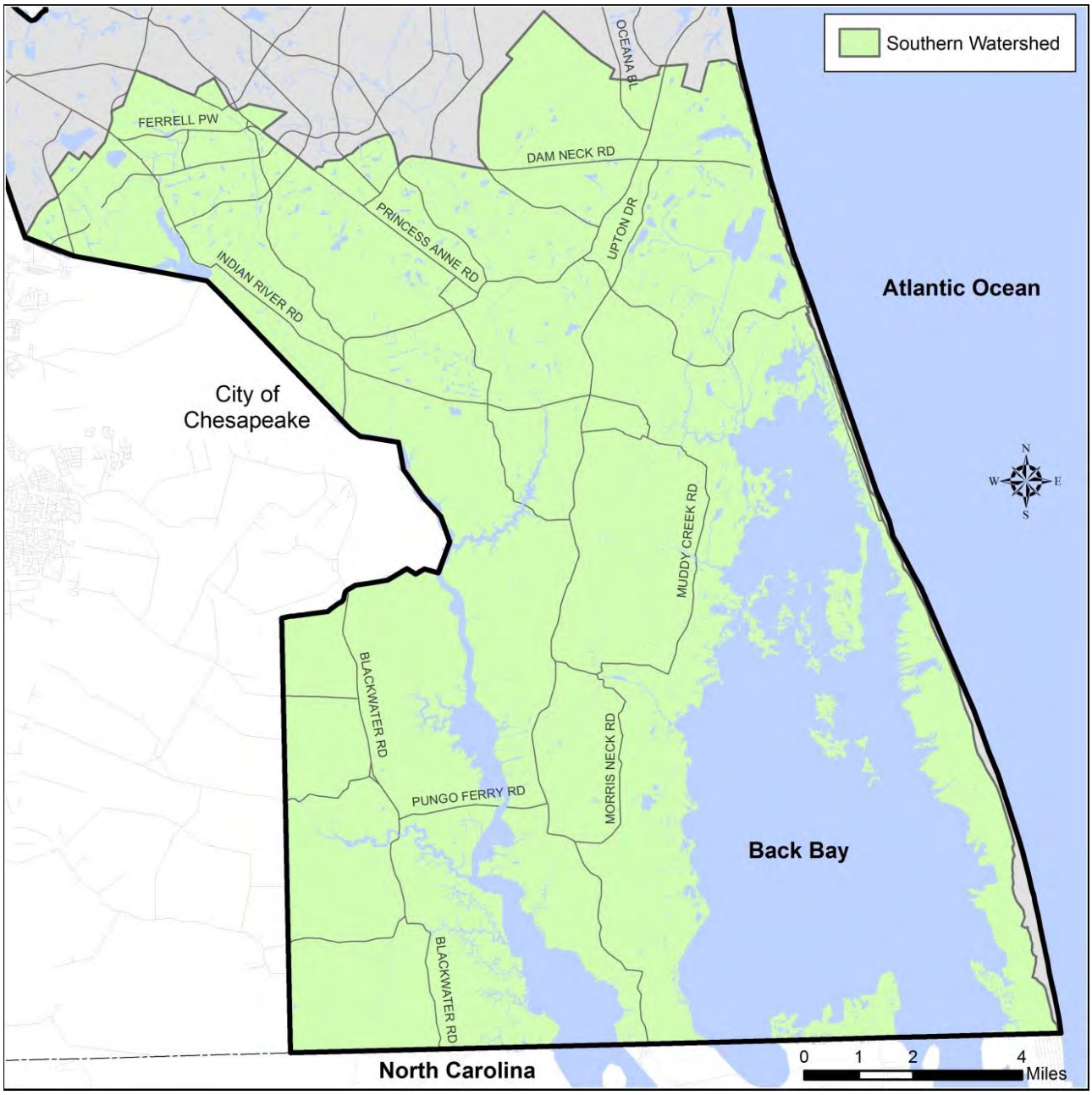
Natural Resources, State/Federal Lands, and Parks

The watersheds of the North Landing River, the Northwest River, the Small Coastal South Watershed, and Back Bay, are collectively referred to as the Southern Watershed *(see Southern Watershed map on the next page)*. This watershed constitutes a unique and sensitive environment, inclusive of coastal primary sand dunes, tidal wetlands, nontidal wetlands, and hydric soils. Extensive floodplains and marsh fringes bordering the waterways within the Southern Watershed provide a unique and valuable habitat. Lands adjacent to the waterways have an intrinsic water quality value due to the ecological and biological processes they perform. Much of the area within the Southern Watershed lies within natural areas identified in the Virginia Beach Natural Areas Inventory and it contains significant natural heritage resources.

Mill Dam Creek, a Tributary of the North Landing River

The North Landing River Watershed is the largest secondary watershed located in southern Virginia Beach. This watershed covers much of the western and southwestern portions of the City and the eastern portions of the City of Chesapeake, comprising an area of roughly 105,600 acres. The North Landing River and its tributaries support a large concentration of rare plant and animal species and natural communities, many of which have global significance, thus making this an extremely important area for biodiversity conservation in the mid-Atlantic region. The North Landing River is part of the Intracoastal Waterway, a major inland waterway running along the Atlantic and Gulf Coasts of the United States. Much of the land surrounding the river is owned and protected by various public, private, and nonprofit conservation organizations, comprising roughly 15,700 acres under easements held by federal, state, local, and nonprofit partnerships. The North Landing River is a major recreational resource that is used extensively for boating, hunting, and fishing. The river and its tributaries have been designated by the State and City as a Scenic River.

Most of the Rural Area is comprised of Land Management Soils, which are not suitable for major residential subdivision development. These are Somewhat Poorly, Poorly or Very Poorly drained soils, as defined by the 1985 issue of the *U.S. Soil Survey for Virginia Beach*. As a result, extension of public water and sewer services to this area is not intended. Rural residential development has historically been limited to areas consisting of well-drained soils and deeper water tables that are capable of handling septic systems. However, recent changes in state legislation enable the design and use of alternative septic systems. This may begin to place development density pressure on the Rural Area in ways not previously expected.



SOUTHERN WATERSHED AREA MAP

Rich in natural and recreational amenities, the Rural Area is home to multiple state and national parks, refuges, natural areas, and wildlife management areas. Back Bay National Wildlife Refuge (NWR) was established on June 6, 1938 as a 4,589-acre refuge to provide feeding and resting habitat for migratory birds. It is a critical segment in the Atlantic Flyway. As Virginia Beach began to grow in the 1980's, the U.S. Fish and Wildlife Service pursued a land acquisition program to double the size of Back Bay NWR in order to protect the watershed from harmful development. Since 1988 the Refuge has grown to over 9,250 acres, protecting critical habitat for wildlife, which years ago had been zoned for residential and commercial use.

Back Bay looking south

Back Bay NWR includes a thin strip of barrier island coastline typical of the Atlantic and Gulf coasts, as well as upland areas on the west bank of Back Bay. Habitats include beach, dunes, woodlands, agricultural fields, and emergent freshwater marshes. The majority of refuge marshes are on islands within the waters of Back Bay. Thousands of tundra swans, snow and Canada geese, and a large variety of ducks visit the refuge during the fall/winter migration. Refuge waterfowl populations usually peak during December and January. The refuge also provides habitat for other wildlife, including such threatened and endangered species as the loggerhead sea turtle, piping plover, and recently recovered species like the brown pelican and bald eagle. Back Bay NWR is an "open" refuge with a vibrant visitor program that is both a tourist attraction and benefit to our citizens. It offers over 8 miles of scenic trails, a visitor contact station, and interpretive programming.

Located on Back Bay, the Princess Anne Wildlife Management Area, an area of 1,546 acres, serves as the Virginia Department of Game and Inland Fisheries' major waterfowl hunting area. Hunting opportunity is further enhanced by a long-standing cooperative agreement with the Virginia Department of Conservation and Recreation to provide limited access to False Cape State Park for visitors, including hunting waterfowl and deer. The Rural Area also serves as a buffer for Mackey Island National Wildlife Refuge in Knotts Island, North Carolina.

Munden Point Park, located on the North Landing River, is a city-owned, major multi-purpose recreational amenity in the Rural Area, offering public boat access, picnic areas, playgrounds, ballfields, a disk golf course, and a small amphitheater.

It is intended that land use adjacent to and affecting these local, state, and national natural and recreational amenities enhance the use and preservation of these valuable assets.

VISION

The vision for the Rural Area is for it to remain rural into the foreseeable future through a commitment to strong planning objectives that emphasize its agricultural and environmental economic value, in an effort to preserve the area for future generations. By maintaining the rural character of the area and the sustainability of the City's agriculture industry, the City is also providing a plan that will help offset impacts from issues inherent to being a coastal community: sea level rise, wind-driven flooding, and storm-related damage from hurricanes. Emphasizing the value and heritage of our agricultural industry, in order to optimize and preserve it, helps protect our environmentally sensitive lands and waterways, provides for the long term viability of the area's abundant wildlife, and maintains our quality of life. The extension of urban services (public water, public sanitary sewer, and major roadway improvements) is not envisioned for this area now or in the foreseeable future.

RURAL PRESERVATION PLAN

The City seeks to achieve the following four planning objectives for the Rural Area:

- Preserve and promote a vibrant agricultural economy
- Reinforce rural heritage and way of life
- Sustain natural resources for future generations
- Manage rural area development and design

The City's commitment to directing new growth into the Urban Area (Strategic Growth Areas or SGAs), Suburban Area, and Special Economic Growth Areas (SEGAs) is complementary to these Rural Preservation Plan objectives.

Preserve and Promote a Vibrant Agricultural Economy

Agricultural preservation is an important economic and land use issue. Today, the amount of actively cultivated land in the Rural Area is smaller than recorded in years past. This reduction illustrates the importance of effective and affirmative comprehensive planning strategies to the preservation of the City's agricultural land and rural heritage. Accordingly, land use and development in the Rural Area should be evaluated and encouraged in the general context of the overarching goals of preservation and optimization of this integral facet of our city.

The importance of agriculture to Virginia Beach's economy is evidenced by a spectrum of examples. The City's Rural Area is home to major grain handling facilities that utilize container export, thus supporting the Port of Hampton Roads. Virginia Beach is the largest strawberry producer in the state and ranks highly in grain production and equine population. Farm markets, roadside stands, and you-pick farms are not only important economically; they foster Virginia Beach's agricultural heritage, tourism, and quality of life.

Strawberries ready for picking

Local agriculture supports another of the City's long-term goals, as it is the ultimate sustainable industry. Through effective land use planning goals, Virginia Beach has an opportunity to remain at the forefront of the global initiative to meet the increasing need for healthy, varied agricultural products. This is becoming increasingly critical for communities to remain competitive. Virginia Beach's opportunity to maintain this component of its livability and sustainability enhances its appeal and desirability as a Community for a Lifetime. It also directly impacts economic development through industry and research. The City's vibrant and diverse agricultural economy is not only an asset to be preserved; it presents an opportunity for national renown.

Many of Virginia Beach's family-owned and operated agricultural businesses date back to when the City of Virginia Beach was Princess Anne County. The diversity of these businesses is not only a matter of size; it's a matter of what is planted, grown, and harvested such as fruits, vegetables, ornamentals, pasture land, Silviculture, corn, wheat, soybeans, aquaculture, livestock, as well as agritourism and equine uses. The annual impact of agriculture and agricultural uses to Virginia Beach, as well as to the region and state, demonstrates the value and need for sustainability of the industry for its long term growth and resiliency.

Dick Cockrell Arena - Creeds Ruritan Club

Virginia Beach's agricultural industry is supported by the City of Virginia Beach Agricultural Department, the Virginia Beach Cooperative Extension office, and the Hampton Roads Agricultural Research and Extension Center in Virginia Beach, which is supported by Virginia Tech's College of Agricultural and Life Sciences. Virginia Beach also has a strong 4-H program for its youth, with two dedicated facilities provided by the Creeds Ruritan Club: the Ralph Frost Livestock Building and the Dick Cockrell Arena. The 4-H program ensures that the youth of our area are educated about agriculture and prepared to serve as the next generation of stewards of the land.

Irrigating corn (courtesy Cromwell's Produce)

<u>Agricultural Reserve Program</u>

One effective strategy Virginia Beach employs to promote, sustain, and preserve agriculture is through the Agricultural Reserve Program (ARP). The ARP was established in 1995 with a goal of preserving 20,000 acres of agricultural land and open space. It is one of the most successful Purchase of Development Rights (PDR) programs in the nation, according to the American Farm Land Trust. The ARP is a non-development option

available to property owners on a voluntary basis in the City Rural Area. It preserves land for farming, preserves the rural character and environmental resources, and minimizes the need for urban infrastructure. It works by voluntarily purchasing development rights from property owners at fair market value and instills fairness by offering market value compensation to property owners. This ensures that their land's development value will be realized while agricultural production is maintained. The ARP is an important long-range implementation tool for rural and agricultural preservation. ARP sites are not to be used for wetland mitigation. As of June 2015, 9,266 acres have been enrolled in the ARP.

Reinforce Rural Heritage and Way of Life

Rural heritage and way of life are essential components in the Rural Area's sense of place. The residents of the Rural Area, and the City as a whole, have enjoyed the rural lifestyle that has existed here for generations. Long stretches of two-lane roadways connect small and large farms, horse boarding facilities and equestrian-related businesses, campgrounds, wineries, and open space activities. The Rural Villages are small in scale but serve the commercial needs of a comparatively large geographic area. Industrial uses will generally be those that are related to, and dependent on, natural resources such as agriculture, timber, or minerals. All of these uses contribute to the economic health of the city and overall well-being of its inhabitants.

Future farmers (courtesy Cullipher Farm)

Historic Preservation Program

Many of the City's historic resources and sites can be found in the Rural Area. It is the City's policy to use all available resources to preserve designated historic resources, including those provided by the City's Historical Review Board, Historic Preservation Commission, and the Princess Anne County/Virginia Beach Historical Society, as well as those provided by the Commonwealth of Virginia. Retaining these historic resources can be accomplished via sound land use planning guidance and tax credit or abatement assistance to property owners. Additionally, property owners can seek inclusion into the Virginia Century Farm Program, a program dedicated to honoring the Commonwealth's rich legacy of generational farming. For a full listing of historic preservation programs, refer to the "Historical and Cultural Resources" chapter of the Comprehensive Plan's *Technical Document*.

Sustain Natural Resources for Future Generations

It is an important planning objective to protect and sustain the valuable environmental, scenic, and agricultural resources in the Rural Area against inappropriate activities and intense growth pressures.

The prevalence of water, wetlands, and low lying land in the Rural Area is highlighted by the fact that 64% of the City's regulatory floodplain is located here. These floodplains are characterized by wind driven tides and have a limited flood storage capacity, making them extremely sensitive to development and fill. In addition, and as evidenced in anecdotal information provided by the area's farmers, the Rural Area is already experiencing and is anticipated to continue to experience impacts from sea level rise over time. To preserve these unique aspects of the Rural Area, Section 4.10 of the

City's Floodplain Ordinance (Appendix K) limits the use of fill and prohibits new residential dwelling units on newly created lots in the regulatory floodplain.

Natural Resource Management

- *Southern Watershed Management Plan and Ordinance*

  The *Southern Watershed Management Plan* was adopted as a part of this Comprehensive Plan in 2001 (www.vbgov.com/Planning). It is implemented by the *Southern Rivers Watershed Management Ordinance*. The ordinance is intended to protect, enhance, and restore the quality of waters within the Southern Watershed of the city. The ordinance applies to development of any lands within the Southern Watershed (North Landing River Watershed, Northwest River Watershed, the Small Coastal South Watershed, and the Back Bay Watershed) and any artificial alteration of the level or flow of any watercourse or impoundment of water, with exceptions as noted in ordinance Section 6; and, agricultural lands/agricultural activities to the extent set forth in ordinance Section 10. The ordinance establishes development performance standards. The ordinance requires the developer of any land within the Southern Watershed to submit a "Southern Watershed Management Plan," prior to the undertaking of any land-disturbing activity, if such development is subject to the additional performance standards set forth in ordinance Section 7(e), which excludes single-family dwellings or duplexes separately built and not part of a subdivision.

- *Green Sea Blueway and Greenway Management Plan*

  The Green Sea Blueway and Greenway Management Plan (www.vbgov.com/Planning), adopted in 2015, is a regional plan that was developed with collaboration by the City of Chesapeake and Currituck County, North Carolina. This conservation and management plan seeks to protect the abundance of unique and diverse natural resources, open space lands, and potential recreational opportunities existing along three connected waterbodies – the North Landing River in Virginia Beach, the Albemarle and Chesapeake Canal in Chesapeake, and the Currituck Sound in Currituck County, North Carolina. The purpose of the plan is to develop a long-term management strategy that protects, conserves, and manages a unique system of natural resources, open space areas, and carefully-selected recreational uses in a sustainable manner. The plan focuses on each of these waterways as a regional resource with unlimited opportunities for stewardship and enjoyment that can be shared for future generations. The *Green Sea Blueway and Greenway Management Plan* is important to the Rural Area context because of its alignment with the Comprehensive Plan policies and similar plans adopted by reference that have been established to accomplish the following:

Ibises feeding in the Green Sea

  - sustain agricultural production;
  - preserve rural heritage;

- preserve, protect, and promote the area's unique natural resources in a sustainable manner;
- improve stormwater management and floodplain protection;
- protect undisturbed open space land;
- provide low-impact recreational uses where opportunities exist;
- identify and protect wildlife corridors;
- manage invasive plant and animal species; and,
- encourage and promote reasonable uses and activities that are complimentary to the character and integrity of the rural area for the use and enjoyment of future generations.

The plan advocates for the importance of the Rural Area and the need to retain its distinction and attributes not found in the City's Urban and Suburban Areas. These initiatives, coupled with the objective of maintaining a reasonable overall level of rural development potential, establish sound planning policies that balance the need for limited rural growth.

Manage Rural Area Development and Design

Sunflower crop (courtesy Cullipher Farm)

We should continue to pay careful attention to managing the density, intensity, and design of rural residential and non-farm related, non-residential development that occurs in the Rural Area in the future in order to achieve the goals of the Rural Preservation Plan.

Eliminate Need for Urban Infrastructure

It is the City's policy to eliminate the need and cost associated with providing and maintaining urban infrastructure by not allowing the extension of urban infrastructure into the Rural Area. The Rural Preservation Plan does allow reasonable levels of rural development to continue into the foreseeable future, by affording equity for property owners and ensuring that demand placed on public facilities will remain at or below what is deemed acceptable for rural communities. The City also recognizes its responsibility to provide programmed improvements and ongoing public facility and infrastructure maintenance projects in this area.

Rural Area Development

Rural residential development potential in Virginia Beach has historically been based on land area and soil quality, as opposed to lot frontage. Property owners may choose to sell their development rights by participating in the Agricultural Reserve Program or to develop their land either 'by-right,' which yields a maximum density, or through a Conditional Use Permit, which may yield a slightly higher rural density while preserving large tracts of farmland and open space areas. The by-right option has a calculated density of no more than one dwelling unit per 15 acres. The Conditional Use Permit option allows a calculated density of one dwelling unit per 5 to 10 acres, depending on soil quality (Soil Area #1: 5 acres; Soil Area #2: 10 acres). Refer to the "Southern Rural Area Soils List and Map" in the *Technical Report*.

State law now requires local governments to approve single-family residential development plans on parcels where the Virginia Department of Health has approved the design of an Alternative On-Site Septic System (AOSS), regardless of soil quality. *Nonetheless, the City maintains its Rural Area density policies for calculating allowable density*. However, the discretionary determination by City Council to issue a Conditional Use Permit for residential development should take a number of factors into consideration to determine density in addition to soil suitability, including but not limited to: adverse impact on agriculture; the presence of floodplains; groundwater table elevation; and, drainage, roadway, and other infrastructure conditions.

Southern Watershed Subject to "Special Drainage Considerations"

In addition, the Southern Watershed (see Southern Watershed map) is subject to "special drainage considerations." Drainage in the Southern Watershed is highly impacted by the presence of high ground water, poorly draining soils, and high water surface elevations in downstream receiving waters. Therefore, it is incumbent upon the developer of any property in the Southern Watershed to understand and evaluate these factors prior to undertaking the project and to properly account for these factors in the project design. Receiving waters in the Southern Watershed are subject to tidal influences which can be exacerbated by winds. High ground water elevations and poorly draining soils can result in increased runoff, can limit the capacity of the stormwater conveyance systems, and can counter indicate the use of certain Best Management Practices, such as infiltration.

All of these effects must be fully considered and evaluated in the analysis and design of drainage systems in the Southern Watershed. Accordingly, it is strongly recommended that the developer has a preliminary drainage study prepared by a qualified professional engineer in advance of any request to approve a discretionary (versus by right) development that involves land disturbance in the Southern Watershed. The drainage study should fully and accurately evaluate the effects of the foregoing factors on the planned development and on upstream and downstream areas. The proposed drainage system for the planned development would provide positive drainage that meets City standards and does not result in flooding within the planned development or to upstream or downstream areas.

Rural Area Development Design

Rural Area residential development design

Successful rural residential developments do not dominate, but rather, complement the setting and showcase the attractiveness of the natural surrounding countryside. They may include large open space areas that are retained in their natural state, used as farmland, gardens, equestrian centers or other rurally compatible uses. Houses are arranged and streets are aligned in ways that create or adapt to the natural rural setting and do not follow a typical suburban pattern of regimentation, enabling larger, continuous open space areas. It applies such building design techniques as large, open wrap-around porches, pitched roof lines, and detached or side-loading garages. It incorporates architectural details that take cues from local farm buildings, hunting clubhouses, and other examples which reflect the architectural heritage and agrarian character of southern Virginia Beach.

Rural residential and non-residential guidelines should be met, as appropriate, whenever a rural development proposal request is submitted for review. See *City Zoning Ordinance* Article 4, Agricultural Districts for further information regarding the development of rural properties. Related design guidelines for the Rural Area may be found in the Comprehensive Plan's *Reference Handbook*.

RURAL VILLAGES

Blackwater Trading Post

The Rural Villages of Pungo, Back Bay, Creeds, and Blackwater should be thought of as core areas and focal points for existing and future development in the Rural Area. Creeds Village has two nodes, with the main node being the northernmost and which includes Creeds Elementary School and the southernmost node containing small retail and commercial uses and a community Fire/EMS Station. Development in these villages can include a mix of locally- oriented retail or services and community facilities designed to be compatible with the area context. Non-residential development should be located within a Rural Village, unless the non-residential is agricultural in nature or a farm, part of a farm, stable or a mill.

Planning Guidelines for Pungo Rural Village

Pungo Strawberry Festival blanket souvenir

The most recognizable gateway to the southern Rural Area of Virginia Beach and the largest Rural Village is Pungo, located at the crossroads of Indian River and Princess Anne Roads. A traditional rural village and business district comprised of small and varied clusters of commercial, residential, and public uses, Pungo's character is defined by the presence of small retail businesses, an equestrian center, privately-owned land and residences, the City's mounted patrol facility, and conservation areas. Rural Area residents, business owners, and visitors appreciate and value this active commercial node for its rural character and local convenience. Pungo's annual Strawberry Festival welcomes the summer during Memorial Day Weekend and has become increasingly popular with tourists.

Pungo's importance as the Rural Area's main commercial center has declined in recent years with the emergence of the larger destination retail center at Red Mill Commons and Sandbridge Marketplace to the north. As a result, more pass through traffic from and to the more southern reaches of the Rural Area and North Carolina, is impacting Pungo by causing traffic congestion. As traffic congestion increases during the resort tourist season along the Princess Anne Road segment to the north and Sandbridge Road, more and more travelers are using Indian River Road and New

Bridge Road to reach their destination in Sandbridge, resulting in longer traffic delays at the Pungo intersection.

Currently, Pungo is served by various on-site septic systems. These can range from traditional septic systems to AOSS technology systems. There are no reports of any sewer problems currently being experienced in Pungo; therefore, at this time, it is unknown if there is a need for either public sewer or a small alternative public treatment facility to service this Rural Village. A study is needed to determine if any of the existing septic systems are failing or if a desired future development density for the village cannot be accommodated by onsite systems.

To help retain its village character and avoid its giving way to uses and building/site design that is not in keeping with its history as the City's primary gateway into the Rural Area, it is important to use general planning guidelines for future infill development and redevelopment in Pungo. The following planning guidelines should be applied to development proposals within the Pungo Rural Village:

- Development proposals should reflect the existing rural character.
- Older buildings should be considered for adaptive reuse redevelopment opportunities first, and demolition should be considered a method of last resort. Owners of historic properties (buildings 50 years of age or more) should consider nomination for listing on the local, state and national historic registers in order to take advantage of the historic preservation tax incentive programs, as noted earlier in this chapter, to assist with historic building renovation.
- Urban and suburban patterns of development and building design should be avoided. Protect existing public rights-of-way and provide additional pavement width on Princess Anne and Indian River Roads in Pungo to accommodate safer movement of farm equipment and bicyclists.
- Consolidate scattered vehicular access points to property into clearly defined entrances off the road.
- Provide a safe, attractive and continuous pedestrian network to enable greater pedestrian mobility in the village.
- Public water and sewer is recommended to serve the area north of Indian River Road with no public water and sewer or alternate centralized sewer system serving the area south of this road.

Related design guidelines for Pungo Rural Village may be found in the Comprehensive Plan's *Reference Handbook*.

AGENDA FOR FUTURE ACTION RECOMMENDATIONS: Rural Area

- Review Section 402(b) of the Zoning Ordinance (Agricultural Districts) for possible amendment to address Code of Virginia Section 15.2-2157(c) and because it limits density by reference to how well different soil types can accommodate a traditional on-site septic system. The City should consider factors other than soil types to limit density including, but not limited to, adverse impact on agriculture, the presence of floodplains, groundwater table elevation and drainage, roadway, and other infrastructure conditions.
- Using GIS, analyze floodplains to determine where future rural residential development should be avoided.

- Use GIS analysis to determine how many platted lots of 5 acres or less along rural roadways that were not considered buildable due to soil constraints are now potentially buildable under state AOSS regulations. Assess the extent to which rural roadways may be impacted.
- Formally delineate the Pungo Rural Village boundary using stakeholder input and community consensus-building.
- Using stakeholder input and community consensus-building, prepare a Master Plan for the Pungo Rural Village to determine the type and form of future desired growth. An important aspect of this planning process should be to anticipate when that growth might reasonably be expected to occur.
    - Conduct a study for Pungo Rural Village to determine if the existing on-site systems should be used if Rural Area development policies remain at the current density limit, or if such systems cannot be repaired or rehabilitated using AOSS technology if they are found to be failing. If it is found that existing onsite systems are failing and cannot be repaired, or if development with increased density is anticipated (or desired) to such an extent that onsite technology will not work, a study should be conducted to determine the need for technology options and feasibility for providing public sanitary sewer treatment systems for the Pungo Rural Village. The study should also investigate and evaluate the feasibility and cost of various alternatives.
- Enhance the "Pungo Village Design Guidelines" in the Comprehensive Plan's *Reference Handbook* with illustrations.

1.6 - MILITARY INSTALLATIONS AND SUPPORT

Virginia Beach proudly hosts three military installations, including the U.S. Navy's East Coast Master Jet Base. These include:

- Joint Expeditionary Base Little Creek-Ft. Story (U.S. Navy – U.S. Army)
- NAS Oceana and Dam Neck Annex (U.S. Navy)
- Camp Pendleton (VA National Guard)

U.S. Navy Blue Angels in formation

This military presence dates back to the early 20th Century and has come to be a defining character of our city, influencing its growth, economy, and land use patterns through the years. The City supports a continued strong military presence, both now and in the years to come. Our commitment to ensure this includes:

- adopted land use plans as part of this Comprehensive Plan;
- Air Installations Compactible Use Zones (AICUZ) zoning regulations;
- a land acquisition program to reduce incompatible residential density and use encroachment and annual reporting;
- a business relocation incentive program; and,
- advocacy and advisory partnership committees.

We work closely with local and regional military leaders, the United States Congress, the Commonwealth of Virginia, and neighboring municipalities to reduce incompatible land use encroachment, and to prevent future incompatible land use, i.e., encroachment, from occurring adjacent to our military installations. We absolutely recognize the value and importance that the Department of Defense places on its unique training facilities in our city. We desire to work in continued partnership to play host to their mission and their families, who are such an integral part of our diverse community. We desire to be a home to military veterans exiting their distinguished service to our nation and to fully assimilate them into our community through workforce development training to transition and apply their special skills in the civilian sector and through veterans' care programs.

Virginia Beach and the Hampton Roads region have long relied on the military industry as a major thrust of our local and regional economy. Our military presence has enabled us to remain relatively resilient in times of economic recessions. However, as discussed further in Chapter 2, Section 2.4 – Economic Vitality, the region understands fully that in addition to supporting the military presence and benefitting from it, it is imperative that we also have a diverse and sustainable regional and local economy. For example, the *Navy Region Mid-Atlantic Hampton Roads Area FY 2013 Economic Impact Report* indicated that the Navy's direct economic impact on the Hampton Roads area was approximately $9.2 billion, a decrease of approximately $1.8 billion or 16.4% over FY 12's total of $11 billion. Procurement expenditures decreased from approximately $2.8 billion in FY12 to about $1.3 billion. The Hampton Roads area had an overall decrease of about $1.5 billion in procurement expenditures. Active duty military pay decreased by $306 million; retired and survivors pay increased by $76 million; civilian pay decreased by $54 million; NAF increased by $0.5milllion and

contractor pay decreased by $55 million. This reduction in military spending as part of a defense budget reduction has affected Hampton Roads localities and many, if not all, localities in the nation with a military presence. In many cases, just as we are experiencing here locally, this trend is being supplanted by growth in other industries.

THE MILITARY PRESENCE TODAY

Joint Expeditionary Base Little Creek – Ft. Story (JEBLCFS) (U.S. Navy – U.S. Army)[ii]

JEBLCFS is the largest military employer in the city of Virginia Beach. It is the major East Coast base supporting overseas contingency operations (OCO), with 130 resident commands, including 3 flag officers. The installation consists of 3,947 acres of land and includes 61 piers and 7.6 miles of beachfront, and a total of 126 training sites. As of January 31, 2015, JEBLCFS homeports 24 Navy Auxiliary Ships, the USCGC Vigorous, and 126 small craft. The total base population is 19,179 (Little Creek Base: 16,658; Ft. Story Base: 2,821). Base population growth since September 11, 2001 has been just under 10,000 persons or almost 100%. To accommodate the growing presence, there are now 1,155 base housing units, with 337 units located inside the fence line. Estimated payroll is $1.3B, making a substantial impact on the City's economy.

Aerial view of Amphibious Base at Joint Expeditionary Base Little Creek-Fort Story (JEBLCFS)

The character of the base has changed since September 11, 2001, becoming more expeditionary in nature. According to base planners, JEBLCFS is becoming the training site of choice for the joint community due to characteristics that are unique to the East Coast. It is recognized as an irreplaceable "National Joint Training Asset," offering joint logistics over the shore training and a nearly full mission profile for special operations training. Recent trends indicate that more units are conducting training locally, decreasing travel training dollars. Through strong community engagement with City of Virginia Beach leaders and city planners, encroachment is manageable with community support.

Transfers have occurred since the last Comprehensive Plan update in 2009. During 2013-2014, the following operations were relocated:

- Navy CYPERFOR and NETWAR Commands (relocated to Suffolk) – due to recurrent flooding associated with sea level rise impacts.
- PCRON/Coastal Patrol Craft (relocated 5th AOR/Mayport, FL)
- USS Fort McHenry (homeport shift to Mayport, FL)

LACVs at JEBLCFS

Base mission growth in the future is anticipated to consist of an increase in Explosive Ordinance Disposal Group 2 Operations; expansion of the Naval Special Warfare and Support Activity footprint; gains in training vessels and equipment; and an increase in training operations/capacity.

JEBLCFS is a committed steward of its cultural and natural resources, working closely with the City and non-profit organizations to inventory and protect these assets. Some of these include the Cape Henry lighthouses, the original base chapel, the First Landing site, and the various monuments documenting the strategic role that Cape Henry played during the American Revolution and the War of 1812.

JEBLCFS has a robust community engagement program, ensuring that it works in partnership in a variety of needs identified as mutually important. These include:

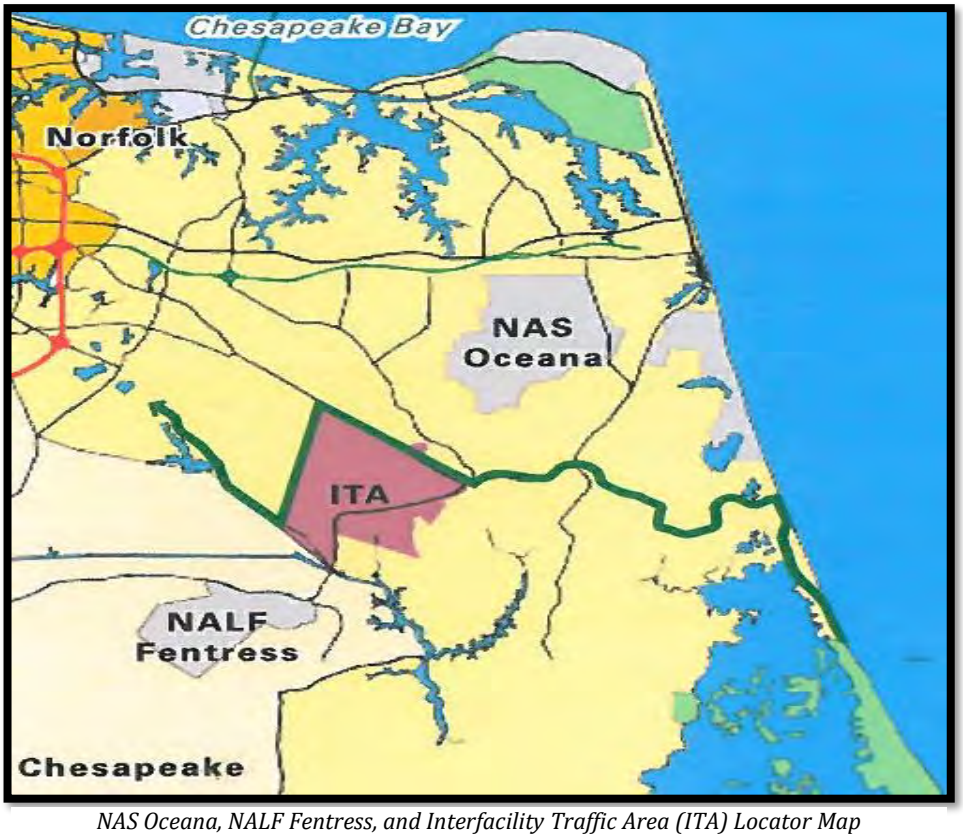
- Quarterly meetings with City of Virginia Beach leadership
- Virginia Beach City Public Schools
- Virginia Beach Education Association
- Partners in Reducing Sexual Assault
- Federal Aviation Administration
- Hampton Roads Chamber of Commerce
- Virginia Beach Bayfront Advisory Commission
- Military Economic Development Advisory Committee
- Joint Military Services School Liaison Committee
- Military Child Education Coalition
- Hampton Roads Planning District Commission
- Virginia Military Advisory Commission
- Central Virginia Food Bank
- USO of Hampton Roads and Central Virginia
- Armed Services YMCA

Since 2009, City and base planners have developed an "Areas of Interest" map (see next page) and list of land uses of particular interest to the base. These tools assist both parties in determining which proposed uses may be in potential conflict or encroachment with base mission and operations. The Department of Planning & Community Development provides the base Community Planning Liaison Officer (CPLO) an opportunity to review and comment on development applications located in the Areas of Interest, prior to Planning Commission or City Council public hearing. The City's Public Works and Public Utilities Departments are in routine communications with base planners to inform them about pending infrastructure construction projects (i.e., roadway repair, bridge maintenance, underground utilities work, etc.) in consideration of personnel mobility along the Shore Drive corridor between the two base areas at Little Creek and Fort Story.

Virginia Beach
Virginia Beach
Atlantic Ocean
General Interest
Primary Interest
Joint Expeditionary Base Little Creek - Fort Story
Area of Interest for Coordination in Virginia Beach

Naval Air Station Oceana and Dam Neck Annex (U.S. Navy)[iii]

Naval Air Station (NAS) Oceana is the Navy's only Master Jet Base on the East Coast and supports the training and deployment of the Navy's Atlantic and Pacific Fleet FA-18 C/D Hornet and FA-18 E/F Super Hornet squadrons. Four carrier air wings (CVWs) are homebased at NAS Oceana and deploy with carrier strike groups embarking from Naval Station Norfolk (NS). Strike Fighter Wing Atlantic, which mans, trains, and equips 18 FA-18 Hornet and Super Hornet squadrons, is also located at NAS Oceana. Naval Auxiliary Landing Field (NALF) Fentress, located 7 miles southwest of NAS Ocean in Chesapeake, Virginia, is equipped to simulate aircraft carrier flight decks and supports training operations by strike fighter squadrons from NAS Oceana.



NAS Oceana, NALF Fentress, and Interfacility Traffic Area (ITA) Locator Map

The Navy employs 17,000 personnel at NAS Oceana, NALF Fentress, and a third installation, NAS Oceana Dam Neck Annex, locally referred to as "Dam Neck." NAS Oceana generates over $1 billion in payroll, and goods and services annually.

The FA-18 C/D Hornet and FA-18 E/F Super Hornet are the predominant aircraft stationed at NAS Oceana and account for the majority of aircraft operations at the airfield. Operations conducted as part of the typical training syllabus for flight crews include departures, arrivals, touch-and-go's, and practice radar approaches. NAS Oceana flight crews also conduct field carrier landing practice (FCLP) at NALF Fentress and training operations in offshore training areas.

Aircraft engine maintenance "run-ups" are primarily conducted in NAS Oceana's acoustical aircraft facility, known as the "Hush House." The Hush House enables maintenance personnel to test jet engines that are installed in aircraft in a fully-enclosed building. The noise absorbing materials of the building's interior, combined with dense exterior walls, eliminate engine noise that would otherwise be heard by neighboring Virginia Beach residents.

Air Wing Homecoming

<u>NAS Oceana Dam Neck Annex</u>
Dam Neck Annex is home to 20 operational, training and support commands. The installation includes 1,919 acres and includes 3.2 miles of coastline along the Atlantic Ocean. It serves as the Navy's Training Center of Excellence, instructing over 20,000 students annually in over 210 courses of instruction.

Additional training and Navy Fleet support areas include:

- Synthetic warfare training to Carrier Strike Group and Amphibious Ready Group Staffs, Warfare Commanders and specified units/commands
- 24/7/365 Maritime Domain Awareness (MDA) support and vital maritime surveillance information to the Atlantic Fleet
- State-of-the-art intelligence training including real world applications

A Memorandum of Understanding has been established between the City of Virginia Beach and the U.S. Navy covering the use of the Dam Neck Annex South Gate for emergency response supporting Sandbridge residents and natural disaster evacuation routing.

<u>Camp Pendleton/State Military Reservation</u>[iv]

Camp Pendleton/State Military Reservation (SMR) is a Virginia Army National Guard facility located just south of the main resort area of Virginia Beach. The facility was originally laid out on approximately 400 acres in 1911 with construction beginning in 1912. Today, SMR occupies approximately 300 acres with an additional 27 acres leased from the federal government.

SMR is defined by the intact landscape created by the dominant building type, World War II-era temporary buildings, and the examples of earlier 20th century military and residential building types. The post is buffered from the public streets by extensive trees and landscaping, in addition to the required security fencing along the perimeter. The Guard currently leases a number of the buildings, particularly the WWII barracks, to various military and civilian agencies.

The first major building campaign after WWI was the construction of the REDHORSE facilities (1990s) at the north end of Regimental Camp #1 and south of Warehouse Road. The 203rd

REDHORSE Flight unit is a construction and repair unit for the Virginia Air National Guard and their headquarters is located at SMR. A memorial is located in this area to honor the airmen from REDHORSE who were killed in an airplane accident returning from training in March 2001. Additional construction projects executed during the late 1990s include an armory at the corner of General Booth Boulevard and Birdneck Road.

Barracks at Camp Pendleton

Development pressure from the City led to the transfer of some SMR parcels of land from the Guard to the City during the 1990s. These parcels included acreage beyond the original cantonment area of SMR. As a result, the boundaries of SMR incorporate all the land (with the exception of a small tract south of Lake Christine leaded from the federal government) between General Booth Boulevard, Birdneck Road, Rifle Range Road, the Atlantic Ocean, and the Croatan neighborhood. A 14.94-acre parcel of land just west of Headquarters Loop along the property boundary at General Booth Boulevard has been leased to the City for use as a parking lot by the Virginia Aquarium.

Despite the few intrusions to the original plan and subsequent configuration of Camp Pendleton/State Military Reservation, the integrity of both the architectural resources and cantonment features dating from 1912-1945 have remained intact and well preserved. As a result, the Camp Pendleton/State Military Reservation Historic District was listed on the *Virginia Landmarks Register* in June 2004 and on the *National Register of Historic Places* in September 2005 as the City's first and only, to date, state and national register historic districts.

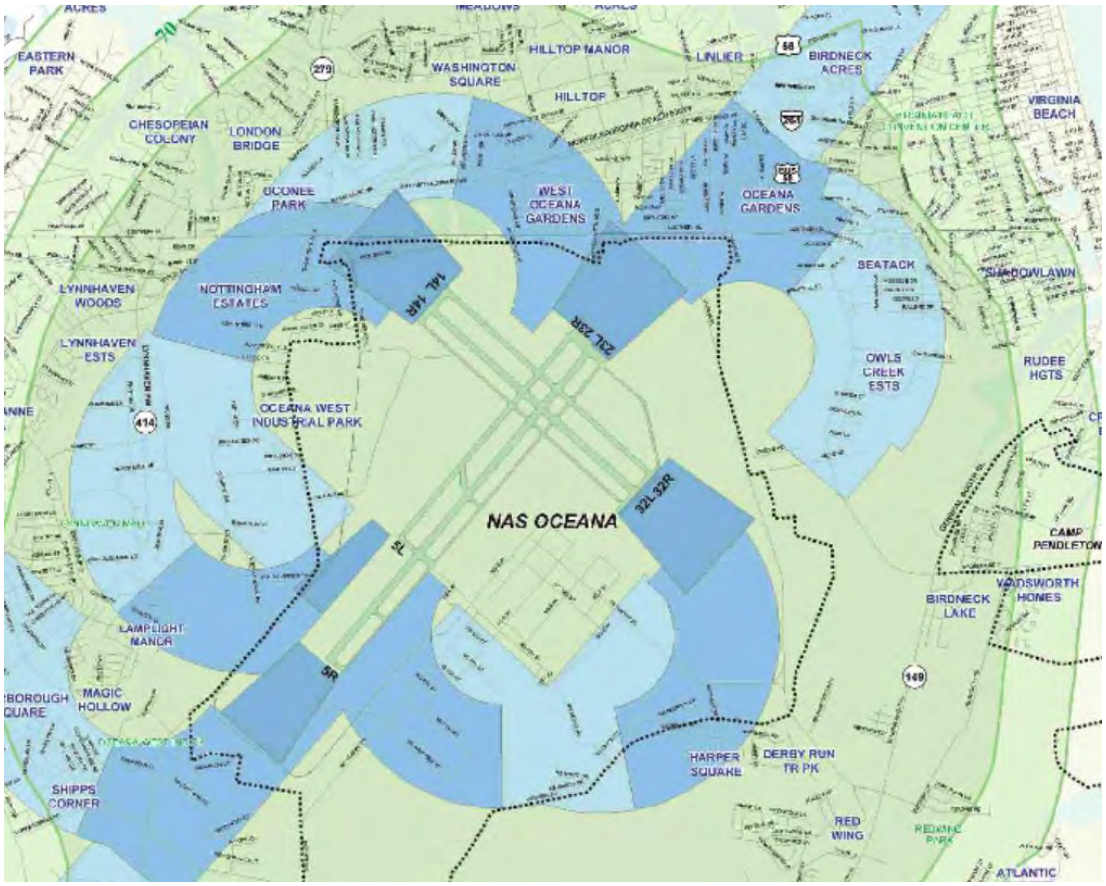
AIR INSTALLATIONS COMPATIBILITY USE ZONES (AICUZ) AND LOCAL LAND USE PLANNING

The chief sources of noise at an airfield are maintenance run-ups and flight operations. Data on both sources of noise is incorporated into NOISEMAP, the DOD-approved computer model that projects noise impacts around military airfields, to develop a graphic depiction of noise exposure. Noise exposure is assessed for AICUZ purposes using the day-night average sound level (DNL) noise metric. The DNL is depicted graphically as a noise contour that connects points of equal noise value.

The AICUZ Program divides noise exposure into three categories, known as noise zones. Noise zones 1 through 3 are developed based on the DNL, and each noise zone has associated land use control recommendations. The noise zones provide the community and planning organizations with a necessary tool to plan compatible development near airfields. The noise zones for NAS Oceana and NALF Fentress are the noise zones presented in the *2005 Joint Land Use Study (JLUS)* http://www.hrpdcva.gov/uploads/docs/1JLUSExecSumm--Final.pdf

While the likelihood of an aircraft mishap occurring is remote, the Navy identifies areas of accident potential based on historical data from aircraft mishaps, known as Accident Potential Zones (APZs), to assist in land use planning. The Navy recommends that certain land uses that concentrate large numbers of people—apartments, churches, and schools—be constructed outside APZs. Historical data show that most aircraft mishaps occur on or near the runway, diminishing in likelihood with

distance from the runway. APZs follow departure, arrival, and pattern flight tracks and are based, in part, on the number of operations conducted for specific flight tracks. The three standard APZs, in order of accident potential are the clear zone, APZ 1 and APZ 2. Thus, an accident is more likely to occur in the clear zone than in APZ 1 or 2 and is more likely to occur in APZ 1 than APZ 2. The APZs for NAS Oceana and NALF Fentress are the APZs presented in the 2005 JLUS Planning Map. These APZs illustrate the dominant flight tracks currently flown at each airfield.



NAS Oceana portion of 2005 JLUS Planning Map

A composite noise contour and APZ map has been developed and overlaid on an aerial photograph to show the AICUZ footprint for both NAS Oceana and NALF Fentress. The AICUZ footprint shows the minimum acceptable area within which land use controls are recommended to protect the public health, safety, and welfare and preserve the defense flying mission. The AICUZ footprint for NAS Oceana and NALF Fentress and the related land use planning accomplishments and Navy recommendations are fundamental tools for the continued success of the compatible land use planning model that has been in place in the Hampton Roads region of the last several years. In addition, an updated analysis of the number of people within the existing AICUZ footprint was conducted. Using census block-level population data and the boundaries of the AICUZ footprint, it is estimated that approximately 153,320 people live within the existing AICUZ contour.

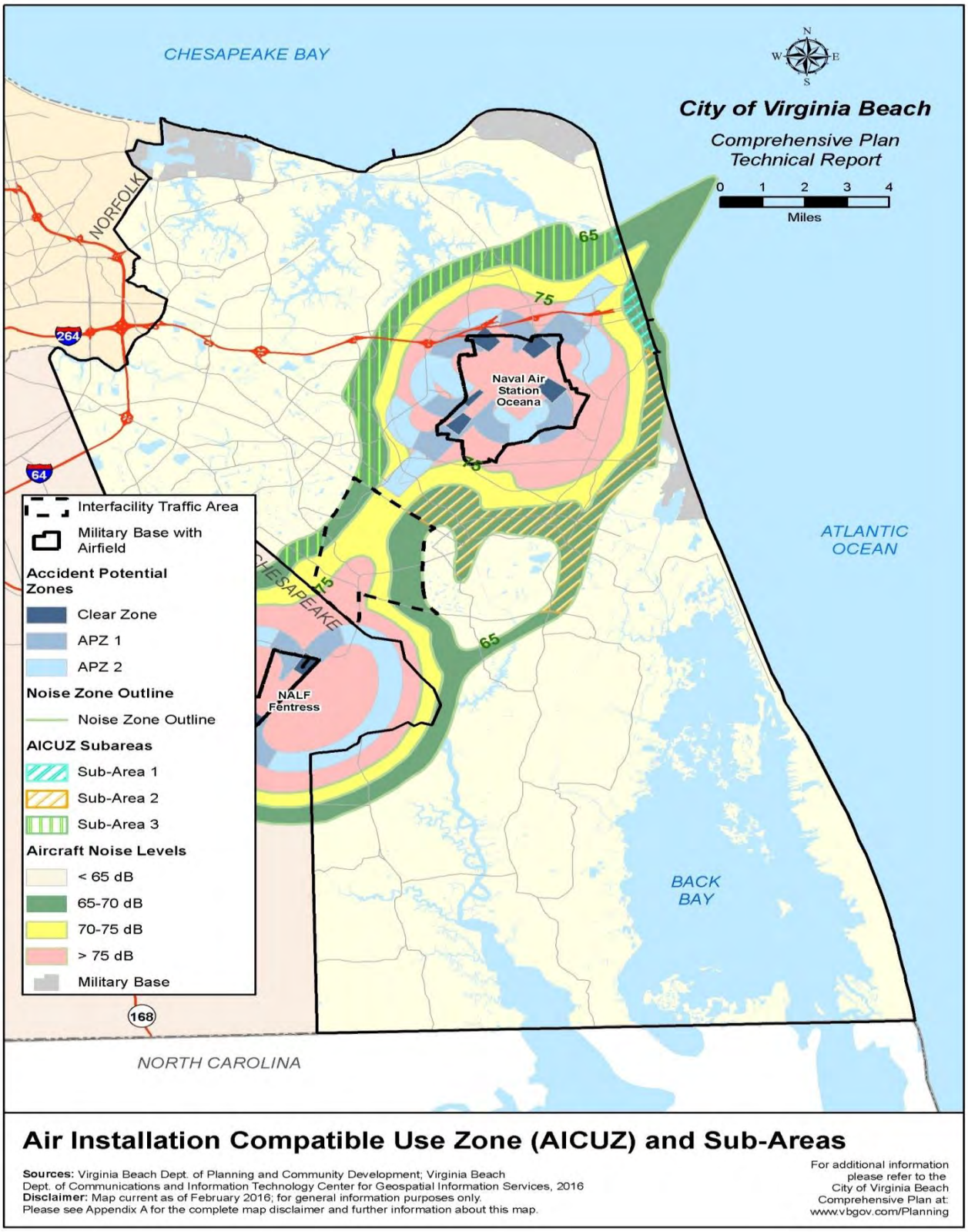
Recognizing the need to balance community growth with the Navy's mission, the Cities of Virginia Beach and Chesapeake have partnered with the Navy to develop various interrelated programs and initiatives to guide and control growth in the AICUZ footprint. These programs and initiatives, which in most cases began during development of the *Hampton Roads JLUS* through the Hampton Roads Planning District Commission in 2004 and 2005, have already lessened the Navy's

operational impacts on adjacent land, while simultaneously easing pressure on the Navy's defense flying mission.

Control over land use and development in areas neighboring the airfields ultimately is the responsibility of local governments. The Navy, through its AICUZ Program, encourages local governments to plan for compatible development. Accordingly, City of Virginia Beach land use planning documents and zoning regulations identify existing and future land use and zoning in areas in the AICUZ footprint.

For example, the City prepared and adopted the *APZ-1/CZ Master Plan* (www.vbgov.com/Planning) in April 2005, as an amendment to the City's Comprehensive Plan. This plan inventoried existing land use conditions within the NAS Oceana Clear Zone and APZ-1. Using public meetings for stakeholder input, the plan recommends future planned land use in the Clear Zone and APZ-1, noting both compatible and incompatible land uses (refer to the APZ-1/Clear Zones Locater Map and Future Planned Land Use maps on the following pages). The Lynnhaven SGA, Hilltop SGA, and Resort Area SGA Master Plans, adopted as amendments to the Comprehensive Plan, also recognize the AICUZ footprint and recommend future land uses accordingly. In addition, the City adopted the *Interfacility Traffic Area (ITA) & Vicinity Master Plan* (www.vbgov.com/Planning), as an amendment to the Comprehensive Plan, originally in 2011. This plan guides future land use and development in Virginia Beach within the high noise zone contours between NAS Oceana and NALF Fentress, and is further described in Chapter 1, Section1.4 - Princess Anne Commons & Transition Area of this Policy Document. An updated version of that plan was adopted by the City Council in 2017. The update was necessary due to the significant increase in land in the ITA purchased by the City as part of the program to support operations at NAS Oceana.

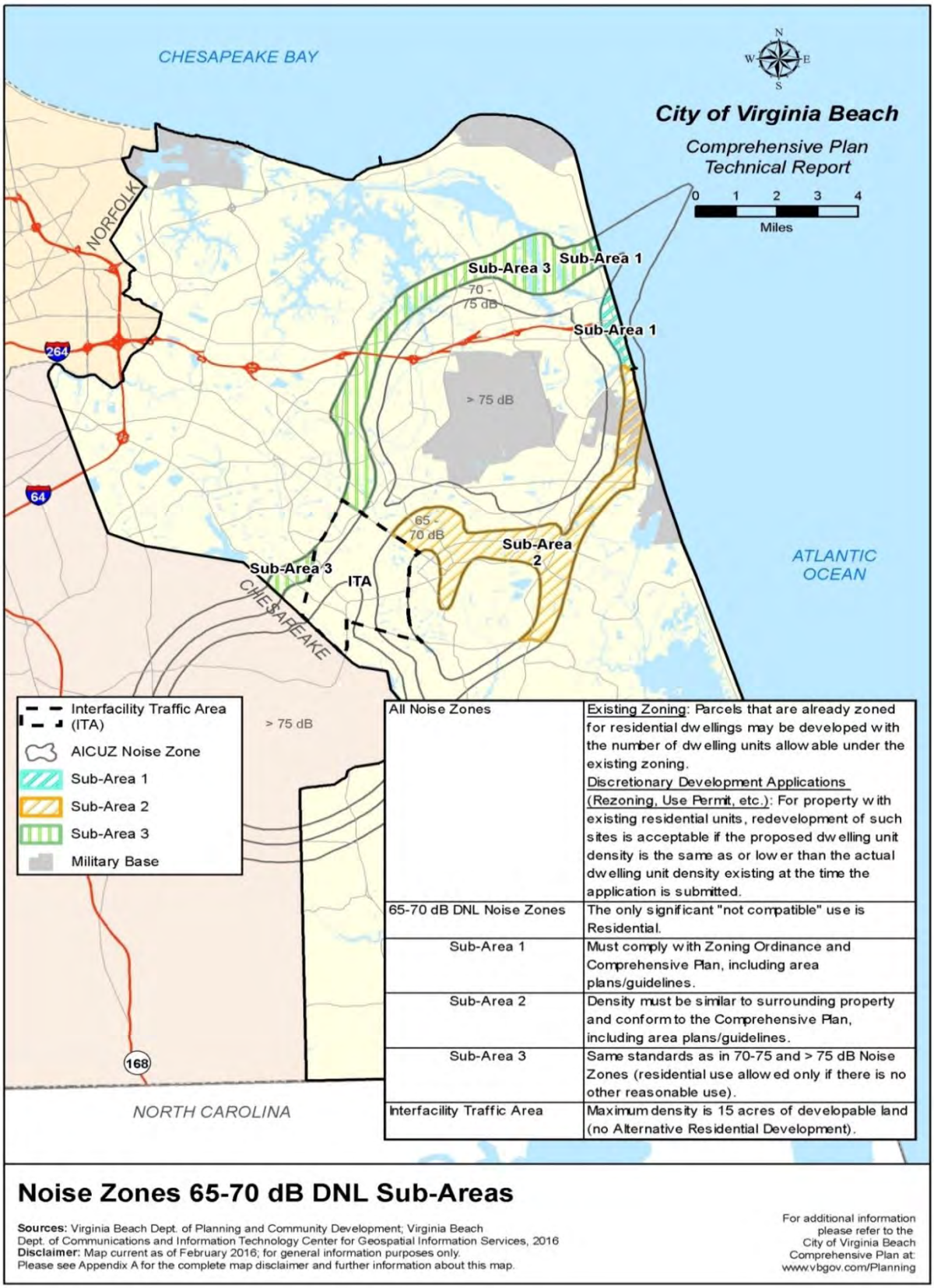
The City's AICUZ Overlay Ordinance regulates land use. AICUZ "Subareas" have also been designated by the City of Virginia Beach to correspond to high noise contours. Each of these subareas has associated land use density policies and use restrictions. The AICUZ areas and Subareas are illustrated on the maps on the following pages.



Air Installation Compatible Use Zone (AICUZ) and Sub-Areas

Sources: Virginia Beach Dept. of Planning and Community Development; Virginia Beach Dept. of Communications and Information Technology Center for Geospatial Information Services, 2016
Disclaimer: Map current as of February 2016; for general information purposes only. Please see Appendix A for the complete map disclaimer and further information about this map.

For additional information please refer to the City of Virginia Beach Comprehensive Plan at: www.vbgov.com/Planning



All Noise Zones	Existing Zoning: Parcels that are already zoned for residential dwellings may be developed with the number of dwelling units allowable under the existing zoning. Discretionary Development Applications (Rezoning, Use Permit, etc.): For property with existing residential units, redevelopment of such sites is acceptable if the proposed dwelling unit density is the same as or lower than the actual dwelling unit density existing at the time the application is submitted.
65-70 dB DNL Noise Zones	The only significant "not compatible" use is Residential.
Sub-Area 1	Must comply with Zoning Ordinance and Comprehensive Plan, including area plans/guidelines.
Sub-Area 2	Density must be similar to surrounding property and conform to the Comprehensive Plan, including area plans/guidelines.
Sub-Area 3	Same standards as in 70-75 and > 75 dB Noise Zones (residential use allowed only if there is no other reasonable use).
Interfacility Traffic Area	Maximum density is 15 acres of developable land (no Alternative Residential Development).

Noise Zones 65-70 dB DNL Sub-Areas

Sources: Virginia Beach Dept. of Planning and Community Development; Virginia Beach Dept. of Communications and Information Technology Center for Geospatial Information Services, 2016
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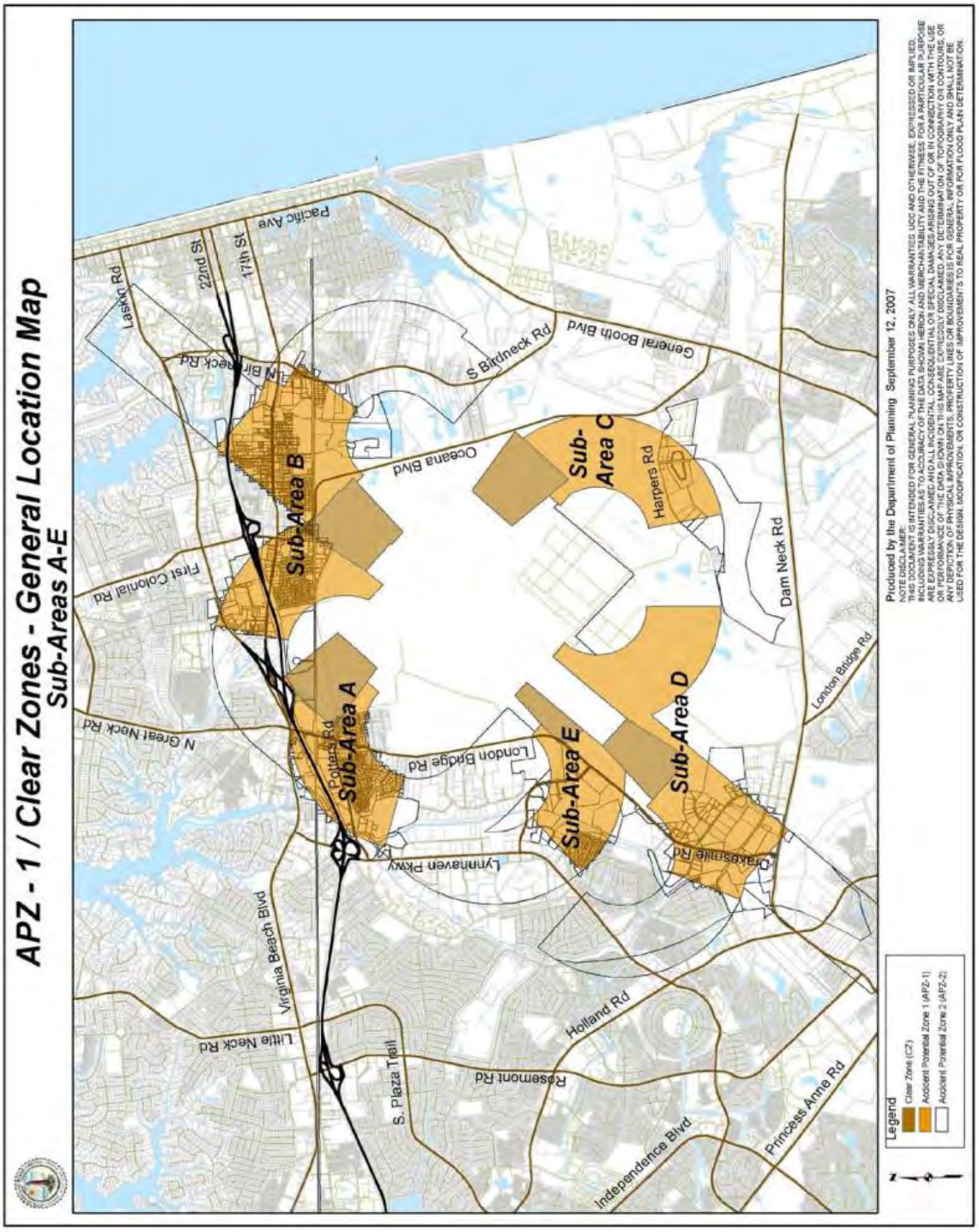
APZ - 1 / Clear Zones - General Location Map
Sub-Areas A-E
Sub-Area A
Sub-Area B
Sub-Area C
Sub-Area D
Sub-Area E
Pacific Ave
22nd St
17th St
Laskin Rd
N Birdneck Rd
S Birdneck Rd
General Booth Blvd
Oceana Blvd
Harpers Rd
Dam Neck Rd
London Bridge Rd
First Colonial Rd
N Great Neck Rd
Potters Rd
Lynnhaven Pkwy
Drakesmile Rd
Virginia Beach Blvd
Little Neck Rd
S. Plaza Trail
Rosemont Rd
Holland Rd
Independence Blvd
Princess Anne Rd
Legend
Clear Zone (CZ)
Accident Potential Zone 1 (APZ-1)
Accident Potential Zone 2 (APZ-2)
Produced by the Department of Planning September 12, 2007
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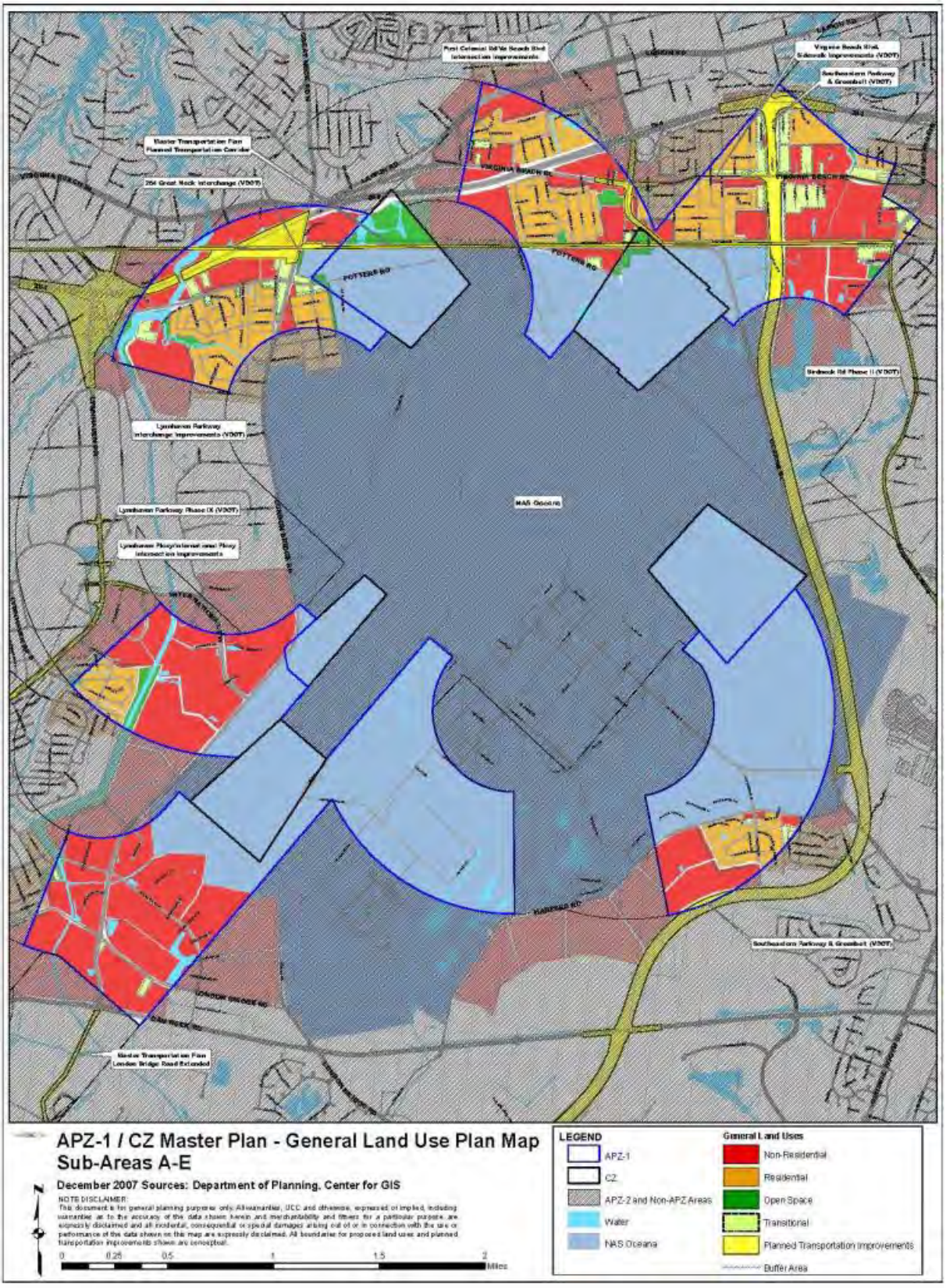
Virginia Beach Blvd. Sidewalk Improvements (VDOT)
Southeastern Parkway & Greenbelt (VDOT)
Master Transportation Plan Planned Transportation Corridor
264 Great Neck Interchange (VDOT)
Lynnhaven Parkway Interchange Improvements (VDOT)
Lynnhaven Parkway Phase IX (VDOT)
Lynnhaven Pkwy/International Pkwy Intersection Improvements
NAS Oceana
Southeastern Parkway & Greenbelt (VDOT)
Master Transportation Plan London Bridge Road Extended
APZ-1 / CZ Master Plan - General Land Use Plan Map
Sub-Areas A-E
December 2007 Sources: Department of Planning, Center for GIS
NOTE DISCLAIMER:
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0 0.25 0.5 1 1.5 2 Miles
LEGEND
APZ-1
CZ
APZ-2 and Non-APZ Areas
Water
NAS Oceana
General Land Uses
Non-Residential
Residential
Open Space
Transitional
Planned Transportation Improvements
Buffer Area

SPECIAL ECONOMIC GROWTH AREAS (SEGAs)

The City has designated 4 Special Economic Growth Area (SEGAs) on the Comprehensive Plan's "Planned Land Use Map," which are described in greater detail in Chapter 2, Section 2.4 - Economic Vitality. SEGAs are viewed as special areas with significant economic value and growth potential, with a primary consideration being adjacency to NAS Oceana or within the Interfacility Traffic Area high noise overflight zone. The City supports development and redevelopment of this area consistent with the City's AICUZ Ordinance provisions and the City's economic growth strategy.

Three SEGAs were initially designated in the 2009 Comprehensive Plan:

1. SEGA 1 – East Oceana
2. SEGA 2 – West Oceana
3. SEGA 3 – South Oceana

In 2011, when the *Interfacility Traffic Area (ITA) & Vicinity Plan* was adopted as an amendment to the Comprehensive Plan Policy Document, SEGA 4 – Princess Anne Commons was subsequently designated. The recommendations pertaining to SEGA 4 – Princess Anne are derived from the *ITA & Vicinity Master Plan*.

CITY-NAVY COOPERATION

The City's APZ-1 Ordinance (adopted December 2005 and revised to include Clear Zones) amended the City's Zoning Ordinance to prohibit all uses in APZ-1 and Clear Zones that are incompatible with OPNAV Instruction 11010.36B (the "OPNAV Instruction"). The APZ-1 Ordinance renders existing uses non-conforming but not incompatible and requires all new development or redevelopment to be consistent with the OPNAV Instruction. As an exception, the Ordinance allows incompatible uses or structures as a replacement of the same use or structure, if the replacements use or structure is of equal or lesser density or intensity than the original use or structure. Where application of the APZ-1 Ordinance leaves property without a reasonable use, the *APZ-1/Clear Zone Use and Acquisition Plan* is intended to direct reuse, rezoning. The acquisition plan focuses on voluntary purchases of pre-existing, nonconforming properties within the APZ-1/Clear Zone that have been devalued by use restrictions, and/or whose owners desire to relocate such uses outside of the APZ-1/Clear Zones. The Plan also includes the voluntary acquisition of ITA and Rural Area AICUZ properties, as well as a program to manage and/or dispose of acquired properties in all acquisition areas. Through June 2014, the City acquired or contracted to acquire 758 residential dwelling units and 63 commercial units in APZ-1 and the Clear Zone. [v]

The City-Navy Joint Review Process Group (JRP) informs the Planning Commission and City Council whether qualifying discretionary proposals, such as rezoning and conditional use permits, meet the requirements of the AICUZ Overlay Ordinance. The JRP meets as needed when rezoning applications are received by the City and consists of the following members:

- City Planning & Community Development Department Staff (JRP Coordination)
- City Attorney's Office
- Director of Planning & Community Development
- Zoning Administrator
- NAS Oceana Planning Liaison
- NAS Oceana AICUZ Program Manager

The Department of Planning & Community Development routes all discretionary review applications within the "Area of Interest" map to JEB Little Creek-Ft. Story and to NAS Oceana within AICUZ zones to their respective base Community Planning Liaison Officer (CPLO). The CPLO's review comments are included in City staff reports to the Planning Commission.

The City's *YesOceana!* Program was developed by the Department of Economic Development to meet the requirements of the Defense Base Closure and Realignment (BRAC) Commission to protect our citizens and keep NAS Oceana in Virginia Beach. This innovative program consists of zoning ordinances and economic incentives to foster the conversion of nonconforming businesses in the APZ-1 into conforming ones and relocating ones that cannot be converted to another part of Virginia Beach. Program incentives include relocation assistance and BPOL Tax reduction.

YesOceana.com Program website

Not only does this approach accomplish necessary rollback, it ensures that redevelopment follows sound planning and land use principles and that any new development is of higher quality than what currently exists. For more information about this program, visit www.YesOceana.com.

PARTNERSHIPS

Since 2005, the City has established multiple partnerships with our military partners to advocate for the military presence in our community and associated economic development opportunities.

Military Economic Development Advisory Committee (MEDAC)

MEDAC was established to enhance the coordination with the local military and its various installation tenant commands. Members appointed by Virginia Beach City Council. Committee members are retired senior officers, retired senior enlisted personnel or qualified civilians having experience in the military warfare areas represented by the various local commands. MEDAC has four primary goals:

- Outreach to U.S. Navy and other military commands
- Economic development opportunities
- Workforce development
- Virginia Beach military affairs

Oceana Land Use Conformity Committee (OLUCC)

The City's Oceana Land Use Conformity Committee makes recommendations to City Council and the Virginia Beach Economic Development Authority on the following matters:

- agreements and transactions that further the purposes for which the Committee was created;

- zoning and other land use ordinances, including the advisability of adopting new or amended ordinances;
- discretionary zoning applications, such as rezoning and conditional use permits;
- ordinances imposing fees or taxes, including the advisability of adopting new or amended ordinances; and,
- staffing and resources necessary, or appropriate, to assist the Committee in the exercise of its duties.

NAS Oceana Encroachment Reduction Program Annual Report

RECOMMENDED POLICIES

- Land uses situated in AICUZs should conform to all adopted plans (e.g., APZ-1/CZ Master Plan, ITA & Vicinity Master Plan, and the Strategic Growth Area Master Plans).

AGENDA FOR FUTURE ACTION RECOMMENDATIONS: Military Installations and Support

- Support the mission of the military installations in Virginia Beach. Continue to route to the Community Planning Liaison Officers (CPLOs) all discretionary and by-right development applications within "areas of interest." Work closely with the CPLOs in the review of development applications for "areas of interest" to avoid potentially incompatible uses.

- Continue to route to the CPLOs for review all discretionary and by-right development applications within "areas of interest" to avoid potentially incompatible uses.

ENDNOTES

[ii] Joint Expeditionary Base Little Creek-Fort Story. "Major East Coast Base Supporting Overseas Contingency Ops." Presentation for Planning Department – City of Virginia Beach, January 7, 2015.
[iii] U.S. Department of the Navy. "Air Installations Compatible Use Zones Addendum." March 2014: ES-2 thru ES-6.
[iv] United States Department of the Interior, National Park Service. "National Register of Historic Places Registration Form: Camp Pendleton/State Military Reservation Historic District." August 17, 2005.
[v] City of Virginia Beach. *NAS Oceana Encroachment Reduction Program – Progress Report: Comprehensive From September 8, 2005 – June 30, 2014*: 17.

CHAPTER 2 – CITY WIDE ELEMENTS

The following sections 2.1-2.4 of the Comprehensive Plan present four 'City-wide' elements that are topic-specific versus area-specific. The policies contained here apply City-wide. Each of these topics is important to the future our city and, in some cases, fulfill state planning mandates.

- Section 2.1 – Master Transportation Plan
- Section 2.2 – Environmental Stewardship Element
- Section 2.3 – Housing & Neighborhoods
- Section 2.4 – Economic Vitality

2.1 – MASTER TRANSPORTATION PLAN

ISSUES CONFRONTING OUR TRANSPORTATION SYSTEM…

TODAY

- Land use largely accommodates automobile-oriented corridors
- Suburban land use design for majority of developed City
- Transportation infrastructure investment supporting suburban roadway system
- Increasing travel times
- Many older narrow roadways, particularly in the rural area of the City

IN THE FUTURE

- Improve and sustain the City's existing suburban and rural roadway network
- Facilitate strategic growth within the City's Strategic Growth Areas, including Transit-Oriented Development, will need to be supported by a multi-modal transportation system
- New or renovated roadway projects to follow a Complete Streets approach
- Emphasis on regional coordination to fund and implement transportation mega-projects
- Maximize Transportation Demand Management to complement transportation infrastructure investments as another tool to reduce traffic congestion

The following topics in relation to goals, policies, and action strategies are all equally important in the development of the City's transportation network and this Master Transportation Plan. The framework for the Master Transportation Plan is:

- Citywide Transportation Policies/Complete Streets
- Roadways
- Transit
- Active Transportation
- Other Regional Scale Transportation Planning
- Transportation Demand Management
- Intelligent Transportation Systems

INTRODUCTION

The City of Virginia Beach Master Transportation Plan (MTP) envisions the future of a multi-modal local and regional transportation network. The City of Virginia Beach has the largest population of any city in the Commonwealth and projections indicate our city will continue to grow. In the next ten years, changing demographics, technology, and environmental changes will have major impacts driving transportation choices and strategies. Our city is one that is in transition. Dramatic shifts in technology and changes in travel behavior will cause the Hampton Roads region to focus on urban mobility and creating sustainable transportation networks to meet transportation needs. As a result, the primary transportation goals for Virginia Beach include:

- Following the Complete Streets philosophy of designing roadways considering the needs for all users and modes in an attractive and environmentally sustainable manner.
- Promoting walkable, transit supportive, mixed-use neighborhoods in the Strategic Growth Areas (SGAs).
- Preserving and meeting the transportation needs of the City's Suburban Area and Rural Area south of the Green Line by concentrating the majority of future development in the SGAs.
- Prioritize transportation improvements to achieve the greatest benefits due to the magnitude of the transportation needs throughout the City.

The Master Transportation Plan, in accordance with the Code of Virginia §15.2-2223, is a mandatory comprehensive planning assessment of existing conditions with consideration of future trends and needs. This plan must consider designation of transportation infrastructure needs, contain maps showing road and transportation improvements, and be in accordance with the Commonwealth of Virginia Six-Year Improvement Program (SYIP). [i] The SYIP is the Commonwealth's fiscal plan to build and maintain new roads.

Since the mid-1990s, the expansion of local comprehensive planning requirements has led to the preparation of more comprehensive transportation plans by Virginia localities. The purpose of this Master Transportation Plan is to present a system of transportation needs and recommendations. It addresses Code of Virginia requirements by providing for a roadway hierarchy and a multi-modal transportation system, while aligning transportation facilities with affordable housing and community services. This plan provides maps of capital improvement projects and the cost estimates associated with their completion. Accountability of this plan will include review by the Virginia Department of Transportation (VDOT) to ensure that it aligns with the vision of the Six-Year Improvement Program (SYIP) and is consistent with the Commonwealth Transportation Board's (CTB) Statewide Transportation Plan. This plan will need review and approval for any subsequent revisions.

This Master Transportation Plan also aligns with *Envision Virginia Beach 2040* by considering transportation "a key priority, focusing on multi-modal means of connecting within our neighborhoods, across the City, region and beyond." [ii] It also aligns with the City's recent adoption of a Complete Streets policy that promotes street safety by creating and managing streets, which "shall be comfortable for pedestrians, bicyclists, transit riders, motorists, and other users."

Existing Conditions, Recent Trends and Projections

Several trends and projections will influence the overall transportation needs of the City and region as follows:

- <u>Demographic Shifts</u>
  - By 2045, the number of Americans over age 65 is expected to increase by 77%. About one-third of those over 65 will likely have a disability that limits mobility. Their access to critical services will be more important than ever.
  - There are 73 million Millennials aged 18 to 34 who will be an important engine of our future economy. Millennials are driving less, as evidenced by a reduction of 20% fewer miles over the 2000s decade. [iii]
  - The demographic shifts identified above are influencing the need to increase the type of living and corresponding transportation choices throughout the city.

- Physical Environment
  - Not only will the City address shifting trends in travel, but we will also assess how to deal with our changing physical environment. Constrained transportation corridors require our transportation planners and engineers to be as efficient as possible with the use of limited rights-of-way. Taking a proactive approach to these trends, the City adopted a Complete Streets policy in 2014 that is designed to enable safe access for all users of the road right-of-way.
  - Historically included in roadway project design as aesthetic treatments and for the many other benefits they provide, trees are now thought of as integral infrastructure for well-designed, multi-modal transportation corridors. Interception of storm water, reduction in urban heat islands, and providing shade for walkers, bikers, and transit users are all reasons for including trees along our transportation corridors. It is also important to note that, unlike other transportation infrastructure, the environmental benefits of well-cared for trees only increase over time.
  - Greater emphasis is being placed on improving public transit services, transit oriented development, transportation demand management, intelligent highway systems, and promotion of active transportation to reduce the reliance on driving single occupancy vehicles.
  - Since the City has an extensive shoreline and water features, environmental impacts such as sea level rise and recurrent flooding will play a key factor in how and where we travel *(see Chapter 2, Section 2.2 - "Environmental Stewardship Framework")*.

- Funding
  - There has been a distinct downward trend of federal and state funding for local road projects. This, in combination with the parallel downward trend of city revenues collections, necessitating that the City conduct more detailed analyses and prioritization of transportation projects.
  - It has been thirty years since the City has undertaken extensive modeling of its transportation network. Preparation of this Master Transportation Plan used a macro modeling as an additional tool for greater analysis of the primary roadway network and to aide in planned roadway infrastructure prioritization.

- Technology
  - There has been a notable advancement in technology that will affect modes of travel, along with the implementation of traffic demand management (TDM) and intelligent transportation systems (ITS). There is also the implication of new methods of technology still under development, such as autonomous (self-driving) vehicles.

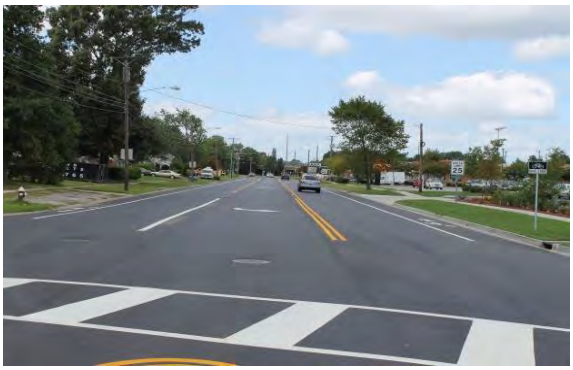
CITY-WIDE TRANSPORTATION POLICIES

Transportation underlies many aspects of successfully planning the growth and sustainability of a city. It is important to address the transportation needs of all people in an equitable manner. Transportation planning decisions must be balanced with compatible land use planning and provide necessary efficiencies. It is also important to prepare for decision making by modeling traffic behavior while understanding the community's needs in the future. With these factors in mind, the City of Virginia Beach has recently woven transportation goals into its various community vision plans as follows:

- Envision Virginia Beach 2040 (2013)
- A Community Plan for a Sustainable Future (2013)
- City of Virginia Beach Strategic Plan, 2015-2017
- Area Master Plans approved since 2007 (Strategic Growth Area Master Plans (2007-2013), Interfacility Traffic Area & Vicinity Master Plan (2011), Virginia Aquarium & Owls Creek Area Plan, etc.)
- Visioning Sessions with City Council (i.e., Annual and Mid-Year Retreats)

Most recently, the City adopted a *Complete Streets* policy and accompanying Administrative Directive (AD) in November 2014. This policy and AD guide transportation planners and engineers in the design and operation of the entire right-of-way to enable roadways to create safer access for all users, regardless of age, ability or mode of transportation. This policy and AD mean that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists. A Complete Streets approach will be applied to all new roadway and roadway renovation projects to the greatest extent feasible, without compromising the primary functional use of the right-of-way.

Urban-style Complete Street



Suburban Style Complete Street

The goals of the City of Virginia Beach Complete Streets policy are:

- Consider all users in all aspects of the project development process for surface transportation projects to the fullest extent practicable.
- Match and balance roadway functions with user needs, both at the roadway segment level and as part of the larger transportation network.
- Develop the public rights of way in harmony with the adjacent land uses.
- Develop an attractive and sustainable transportation system.
- Promote public health by supporting healthy lifestyle choices and improved air quality.

- Promote safety and crash reduction.
- Increase the economic value of business districts and neighborhoods.
- Strengthen the community by creating a sense of place.

The entire Administrative Directive that implement's the City's Complete Streets Policy is found in the Comprehensive Plan's Reference Handbook. More information about Complete Streets can also be found on the City's website at: http://www.vbgov.com/government/departments/sga/transportation-planning/Pages/complete-streets.aspx [iv]

MASTER TRANSPORTATION PLAN FRAMEWORK

ROADWAYS

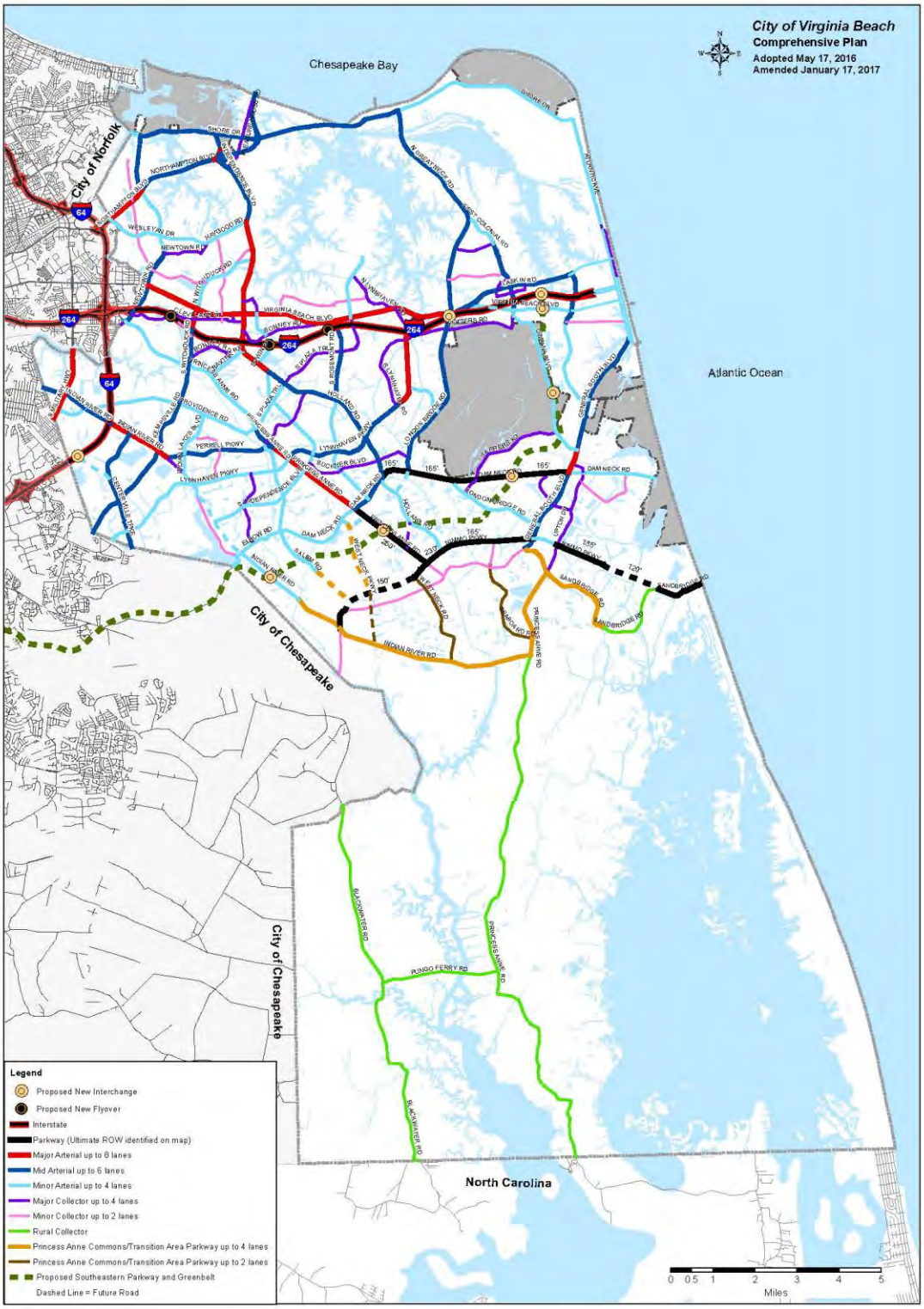
Primary Roadway Network Plan Map

A key component of the Master Transportation Plan is the "Primary Roadway Network Plan Map" *(see next page)*. This Map is a key planning tool for the development of the City's street network. The map was developed in conjunction with current specifications and standards used by the City's Public Works Department. The Primary Network Plan Map identifies the general road corridor locations, classification, and the ultimate proposed motor vehicular lane number and general configuration. The details of what amenities are incorporated in a given road section are identified in the City's Typical Section Standard Drawings contained within the *Public Works Design Standards (see exhibits pp. 2-8 and 2-9).* Each roadway cross section has alternative cross sections for constrained sections where right-of-way may be limited by the natural or built environment. The currently adopted typical sections will serve as a guide to determine ultimate rights-of-way required for new roads. Deviations to the typical section are subject to the approval of the Director of Public Works as per the general guidance of the City's Complete Streets Policy. A listing of the current major street network ultimate rights of way and estimates of cost in today's dollars are included in the Reference Handbook.

For the first time in over thirty years, the development of the Primary Roadway Network Map was accomplished through the utilization of a Travel Demand Model. This Model was developed with the inclusion of the Southeastern Parkway and Greenbelt Project (SEP&G). The City has contracted with Old Dominion University's Virginia Modeling, Analysis, and Simulation Center (VMASC) to perform a detailed micro modeling analysis of traffic impacts of including or not including the SEP&G. Until the results are available from the VMASC Analysis, the Comprehensive Plan Primary Roadway Network will contain the SEP&G. If in the future this roadway is removed from the network, the Primary Roadway Network Map will be amended to include new alignments or modified lane calls for roads with traffic volumes negatively or positively impacted by removal of the SEP&G.

The model results provide a tool for staff to decide on the following future ultimate lane call changes from the 2009 Map to the current 2016 map shown below. The lane call changes resulting from this analysis are found on p. 2-10.

PRIMARY ROADWAY NETWORK PLAN MAP (see insert next page)



Primary Roadway Network Plan Map

Interstate
- ROW identified on a project by project basis
- Planned for a minimum of 250'
- May include HOV lanes

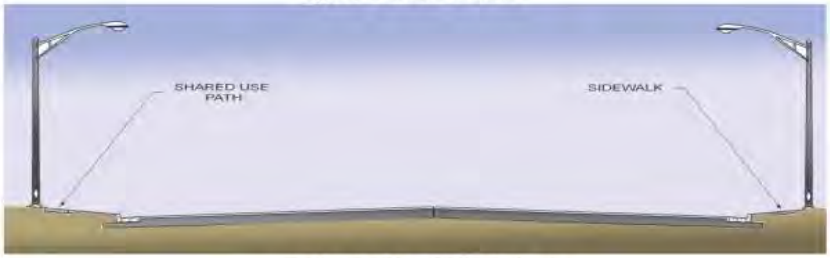
Parkways
- ROW Varies: 190' and 240' Typical
- 4 to 8 lanes
- Shared use path and sidewalk *
- Landscaped median
- Swale drainage (no curb)

Typical Section: Parkway

Arterials
- Major-Up to 8 lanes, 190' ROW
- Medium-Up to 6 lanes, 165' ROW
- Minor-Up to 4 lanes, 145' ROW
- Shared use path and sidewalk *
- Landscaped median
- Curb and Gutter

Typical Section: Arterial

Major Collectors
- Up to 4 lanes – 115' ROW
- Undivided
- Shared use path and sidewalk *
- Curb and gutter



Typical Section: Major Collector
(Note: Minor collector has sidewalks on both sides)

Minor Collectors
- Up to 2 lanes – 70' ROW
- Undivided
- Sidewalks each side
- Curb and Gutter

Rural Collectors
- Up to 2 lanes-70' ROW
- On-street bike lanes/paved shoulder
- Undivided
- Swale drainage (no curb)

Typical Section: Rural Collector

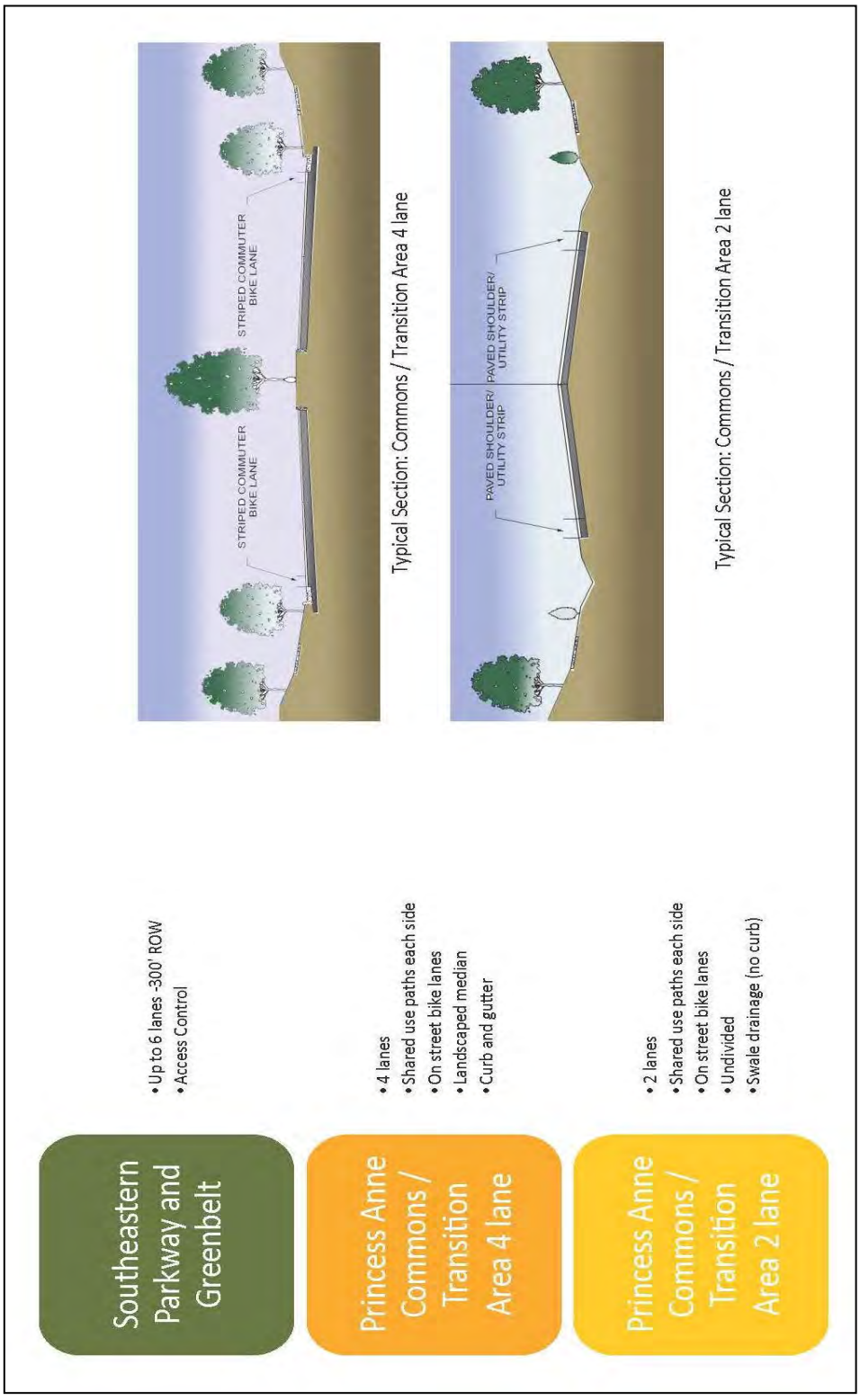
*On street bike lanes may be added in these cross sections, as identified on the map on page 6-18.

*On-street bike lanes may be added in these sections.

TYPICAL SECTION STANDARD DRAWINGS

(source: City of Virginia Beach Public Works Design Standards Manual)

SPECIAL SECTIONS STANDARD DRAWING



SPECIAL SECTIONS STANDARD DRAWING

Increases in future ultimate lanes (from the 2009 to 2015 Map for the year 2040)

- Princess Anne Road (from Providence Road to just south of Ferrell Parkway) from 4 to 6 lanes.
- Military Highway (from Norfolk City limit to Chesapeake City limit) from 6 to 8 lanes

Decreases in future ultimate lanes (from 2009 to 2015 Map for the year 2040)

- Diamond Springs Road (from Northampton Boulevard to Newtown Road) from 6 to 4 lanes
- Baker Road (from Wesleyan Drive to Newtown Road) from 4 to 2 lanes
- Salem Road (from Nimmo Parkway to Indian River Road) from 4 to 0 lanes
- Birdneck Road (from Norfolk Avenue to General Booth Boulevard) from 6 to 4 lanes
- First Colonial Road (from Old Donation Parkway to Great Neck Road) from 6 to 4 lanes
- West Neck Creek Parkway (from Nimmo Parkway to Indian River Road) from 4 to 2 lanes
- Shore Drive (from Diamond Springs Road to Norfolk City limit) from 6 to 4 lanes

Other modifications

- Reflects the existing lanes for all primary roadways within the Oceanfront Transportation Planning Area shown on the 2009 Map. The model results did not indicate the need for increased lane calls for any of these roadways.
- Moved the alignment of West Neck Parkway (from North Landing Road to Indian River Road) to the area just west of Courthouse Estates and line it up with the north-south portion of Landstown Road (from North Landing Road to Landstown Road).
- Adjusted the right of way width on Nimmo Parkway/Sandbridge Road (from Atwoodtown Road to Sandfiddler Road) to accommodate a two lane Parkway section. Adjusted the right of way width of Nimmo Parkway to accommodate a four lane Parkway section (from Atwoodtown Road to Upton Road). Reclassified Nimmo Parkway to a Minor Arterial from Upton Road to General Booth Boulevard.

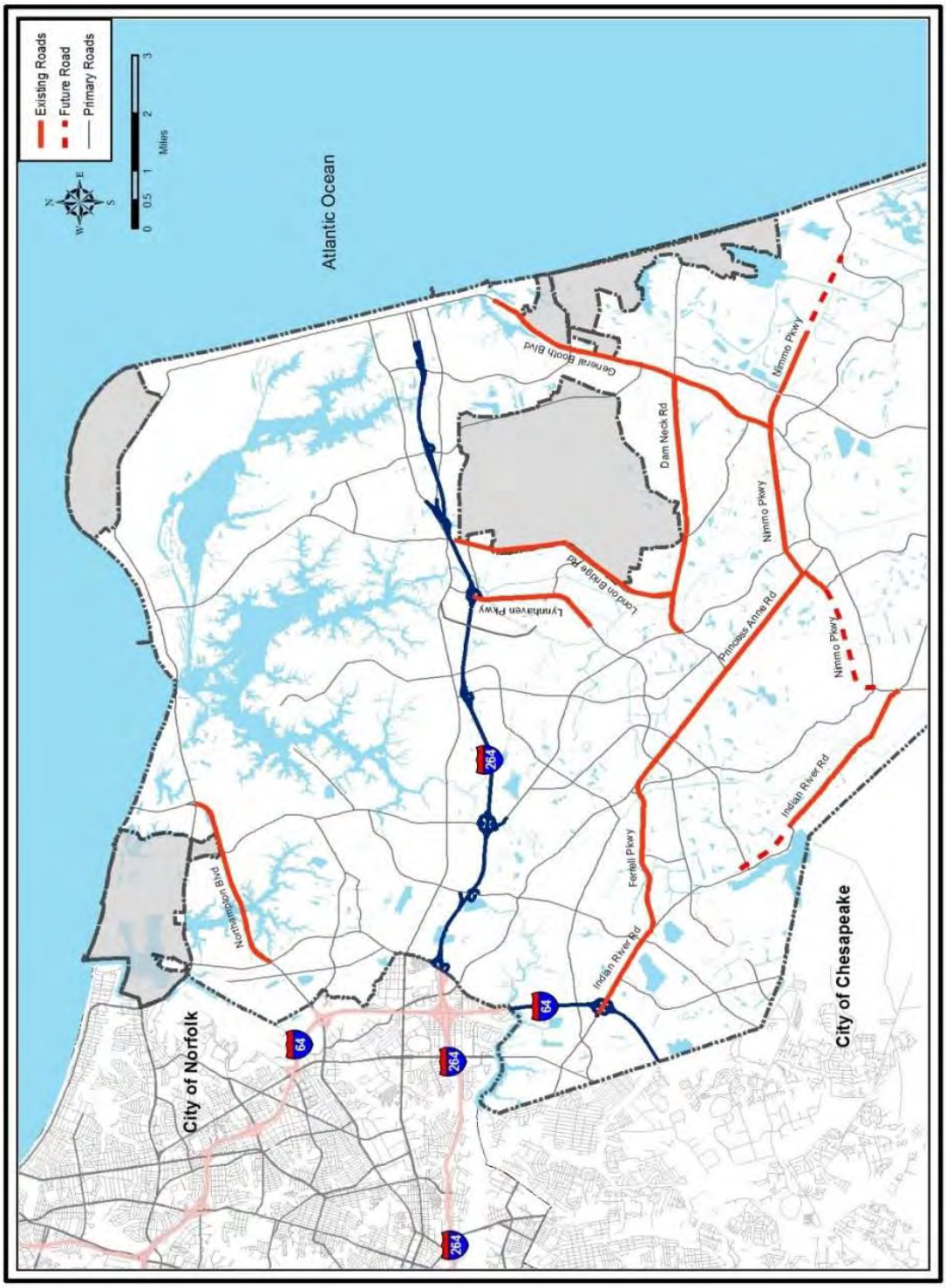
The results are summarized below, and detailed modeling information is contained in the *Reference Handbook.* This model calculated the need and lane call for a facility based upon the traffic generation of existing and projected land uses throughout the city and region for the year 2040. The model was calibrated by aligning recent year traffic assignments with the corresponding existing traffic count data. A unique feature of this model is that the lane calls are based on the implementation of a prioritized group of road improvements that have the greatest cost benefits and value for reducing system-wide delay. It is important to note that the Travel Demand Model is only one analysis tool to provide data and projections for creating the Roadways section of the city's Master Transportation Plan, as well as prioritizing the transportation projects funded through the city's Quality Physical Environment Capital Improvement Program (CIP).

Access Controlled Roadways

There are many ways to improve traffic flow on the City's busier roads. The most expensive way, in many cases, is to add additional pavement or concrete and travel lanes to existing roads. This method increases storm water runoff, and right-of-way and can have a negative impact on surrounding communities and safety. Limiting access on selected corridors may be a more cost effective method to maintain and improve the capacity of these roads. Limiting the turning movements to and from these roads can increase roadway capacity and improve traffic flows on the corridors.

The management of access points (driveways, intersections, etc.) is important to the safety and proper functioning of our roadways. Certain roads, due to their function in the overall roadway network, need a higher level of access control than roads whose function is to provide more direct access. Roads designated "Access Control" are shown on the following Access Controlled Roads Map and has restricted direct access to and from that roadway segment for new developments. Private direct access is not permitted on these roadway segments, except when the property in question has no other reasonable access to the circulation system. Developers are encouraged to utilize building orientation and signage to help identify the businesses along these corridors. The following corridors are designated as "Access Control":

- Northampton Boulevard between Diamond Springs Road and Shore Drive
- Indian River Road from Providence Road to Ferrell Parkway and from South Independence Boulevard to North Landing Road
- Ferrell Parkway
- Princess Anne Road from Ferrell Parkway to Nimmo Parkway
- Lynnhaven Parkway from I-264 to South Lynnhaven Road
- Dam Neck Road from Rosemont Road to General Booth Boulevard
- Nimmo Parkway
- General Booth Boulevard
- South Independence Boulevard from Holland Road to Lynnhaven Parkway
- London Bridge Road/Drakesmile Road from I-264 to Dam Neck Road



ACCESS CONTROLLED ROADS

Regional Transportation Plan Highway Network

Due to the fact that 46% of all workers in the Hampton Roads Region work in a different jurisdiction than where they live (US Census Bureau, 2013), transportation planning must have a regional focus. [v] The primary tool to accomplish coordinated regional planning is the *Hampton Roads 2040 Long Range Transportation Plan* (LRTP), which is scheduled for adoption by the end of 2015. Shown in the Technical Report is the Southside Hampton Roads roadway network from the 2040 LRTP, regional congested highway maps and information pertaining to the regional "mega" projects funded through the recent House Bill 2313.

Roadway Safety

Equally important to the goal of reducing congestion is the goal of improving roadway safety. As with congestion reduction, Intelligent Transportation Systems (ITS) can have a strong role in improving safety. The Commonwealth of Virginia has a federally-required *Strategic Highway Safety Plan*. The most recent update to the plan was in 2012 and addresses the four E's of transportation safety – education, enforcement and regulation, engineering, and emergency response.

The Virginia Safety plan focuses on seven primary safety areas with the greatest promise to reduce crashes and serious injuries including:

- Speeding
- young drivers
- occupant protection
- impaired driving (includes texting, cell phone use, eating, etc.)
- roadway departure
- intersections

Strategies to address several of the primary safety areas listed above will require extensive educational efforts and traffic enforcement. The focus of this plan's recommendations relate to the need for physical roadway improvements to address speeding, roadway departure and intersections. The chief non-local funding source for roadway safety improvements is the Highway Safety Improvement Program (HSIP). The HSIP process requires a data-driven, strategic approach to evaluation safety based on performance. As cited in the 2015 HRTPO State of Transportation report, the following trends are apparent:

- Total number of crashes from 2005-2014 has dropped 24%.
- Total number of injuries has fallen 13%.
- Total number of fatalities has dropped 10%.

The total number of crashes reached its low point in 2010 and has slightly increased since that date. The Comprehensive Plan's Technical Report includes a listing of ranked interstate interchanges and intersections in Virginia Beach, which would provide the greatest safety benefits if targeted for necessary funding for improvements.

Recommended Policies: Roadways

- Require traffic impact studies for any development proposal that yields a net 150 trips or more during the a.m. or p.m. peak hour.
- Evaluate funding options for infrastructure needs created by new development.
- Be creative with highway funding strategies and pursue all available grants and alternative funding strategies to reduce reliance on the shrinking federal and state funding sources.
- Promote mixed use development, higher density development, and transportation demand management, especially in designated growth and activity centers, to reduce the need for single occupancy vehicle trips and encourages transit-oriented development.
- When developing and updating the City's Capital Improvement Plan (CIP), review the CIP for conformity with the Comprehensive Plan (A listing of the current 2015-2020 CIP roadways is included in the Technical Report).
- Evaluate the specific transportation project impact on quality of life and aesthetics for surrounding and proposed land uses.
- Continue to improve the process of coordination between roadway and utility projects to minimize pavement cuts and traffic disruption.
- Continue to implement transportation policies that reduce cut-through traffic and calm traffic in and through neighborhoods, while ensuring connectivity for pedestrian and bicycle users and emergency vehicles.
- Utilize Intelligent Transportation Systems (ITS) to maximize the efficiency of the existing transportation system (see separate ITS section).
- Continue to participate in the refinement of the Regional Hurricane Evacuation Plan.
- Adhere to the recommendations of the 2014 Regional Safety Study strategies to address speeding, young drivers, occupant protection, impaired driving, roadway departure, intersection safety, and reliance on good data.
- Prioritize interstate interchange and local road intersections based on safety cost/benefit analysis outlined in the 2014 Safety Study.

Agenda for Future Action Recommendations: Roadways

- Adopt updated general typical sections and plan views to be consistent with those currently in the Public Works Design Standards.
- Implement the improvements shown on the City's Primary Roadway Network Map, the Regional 2040 Long Range Transportation Plan, and the Bikeways and Trails Plan to the extent funding is available in the City Capital Improvement Program and the State's Six Year Improvement Program (SYIP).

TRANSIT

Regional Transit Planning

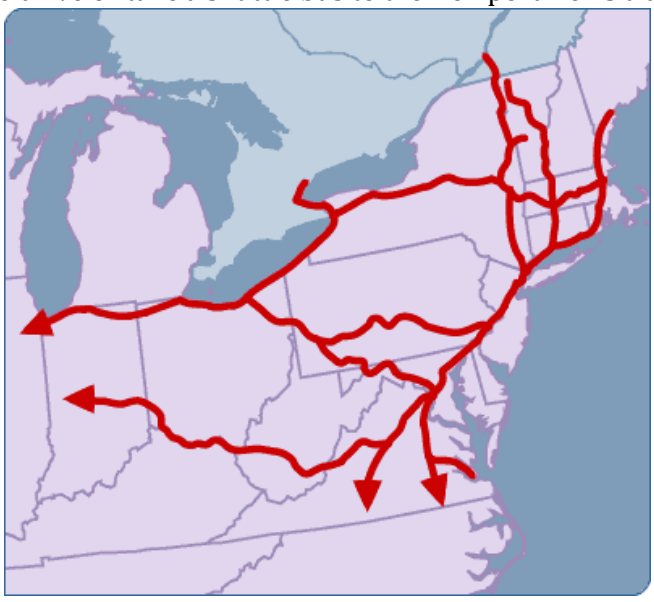
The *Hampton Roads Regional Transit Vision Plan* was completed in 2011 under the guidance of the Virginia Department of Rail and Public Transportation. This plan looks into the future, 2025 and beyond, to visualize the possibilities for the region's transit services. Transit services can be conveniently categorized as those that connect the region to other areas of the State and Nation and those that provide connections between and within the various localities.

More recently, Hampton Roads Transit (HRT) has begun a transit planning effort titled "Connect Hampton Roads (CHR)" that will serve to update the Regional Transit Vision Plan. The campaign's purpose is to create a community outreach process to "rethink mobility for the entire region." Collectively, there are 1.6 million residents in the Coastal Virginia region, and there is a prediction that the population will grow to 2 million in the next two decades. The results of the public input survey indicated that citizens feel there is a lack of transportation choices and a need for a multi-faceted transportation network. Maps and detailed information related to the regional transit plan and the initial stages of the Connect Hampton Roads effort are included in the Technical Document.

Intercity Passenger Rail

Intercity passenger rail (Amtrak) service is the primary public transit service that connects the region to the rest of the country. The private Greyhound bus company also serves to connect Virginia Beach and Hampton Roads to the rest of the state and nation. In December 2012, Amtrak began providing passenger service to Southside Hampton Roads via a new train station at Harbor Park in Norfolk. The below maps show the Amtrak routes within Virginia and the Northeast Region.

This single daily train service serves to connect the Hampton Roads region to Richmond, Washington D.C., and the Northeast Passenger Rail Corridor. Previously, the only other option was to drive or take a shuttle bus to the Newport News train station. The number of passengers who boarded or departed Amtrak trains in Hampton roads has increased 66% over the last decade.[vi] Use of this new Southside service has led the Commonwealth to commit to expanding Amtrak service to three trains in the near future. There is long term interest in pursuing high speed rail service and the Hampton Roads Transportation Planning Organization (HRTPO) took the lead in hiring a consultant to develop a detailed passenger rail vision plan that makes the business case to bring high speed rail to the region.



Amtrak Northeast Passenger Train Routes

Regional/City High Capacity Transit Network

The Norfolk Tide Light Rail line opened in 2011 and is considered to be a High Capacity Transit technology. This line connects the medical center in Downtown Norfolk with the Virginia Beach City line. HRT conducted an Origin and Destination Survey during 2013 and 2014 to determine points of origin and destination for passengers using The Tide [vii]. Results of this study indicate that a surprising 33% of all the Norfolk Tide light rail users reside in Virginia Beach. The busiest stations for Virginia Beach riders are at the eastern end of the line, including Newtown Road (57% of riders) and Military Highway (21%of riders) stations. Virginia Beach ridership is fairly dispersed throughout the remainder of the system and this study reflects that there are multiple destinations within the City of Norfolk. The vast majority of trips were from home to work. Other secondary trip purposes include colleges/universities, personal business, shopping, social visits, and medical appointments.

The Tide Light Rail station

In 2015, the Virginia Beach City Council adopted a Locally Preferred Alternative (LPA) resolution for an extension of The Tide from the Newtown Road station in Norfolk to the Virginia Beach Town Center, with new station locations at Witchduck Road, Kellam Road, and Constitution Avenue and above grade crossings at Witchduck Road and Independence Boulevard in order to bypass those roadways that experience high motor vehicle traffic volumes (*see exhibit p. 2-18*).

With this action, Virginia Beach set in motion a multi-faceted approach to the provision of enhanced transit services to Virginia Beach for the future as follows:

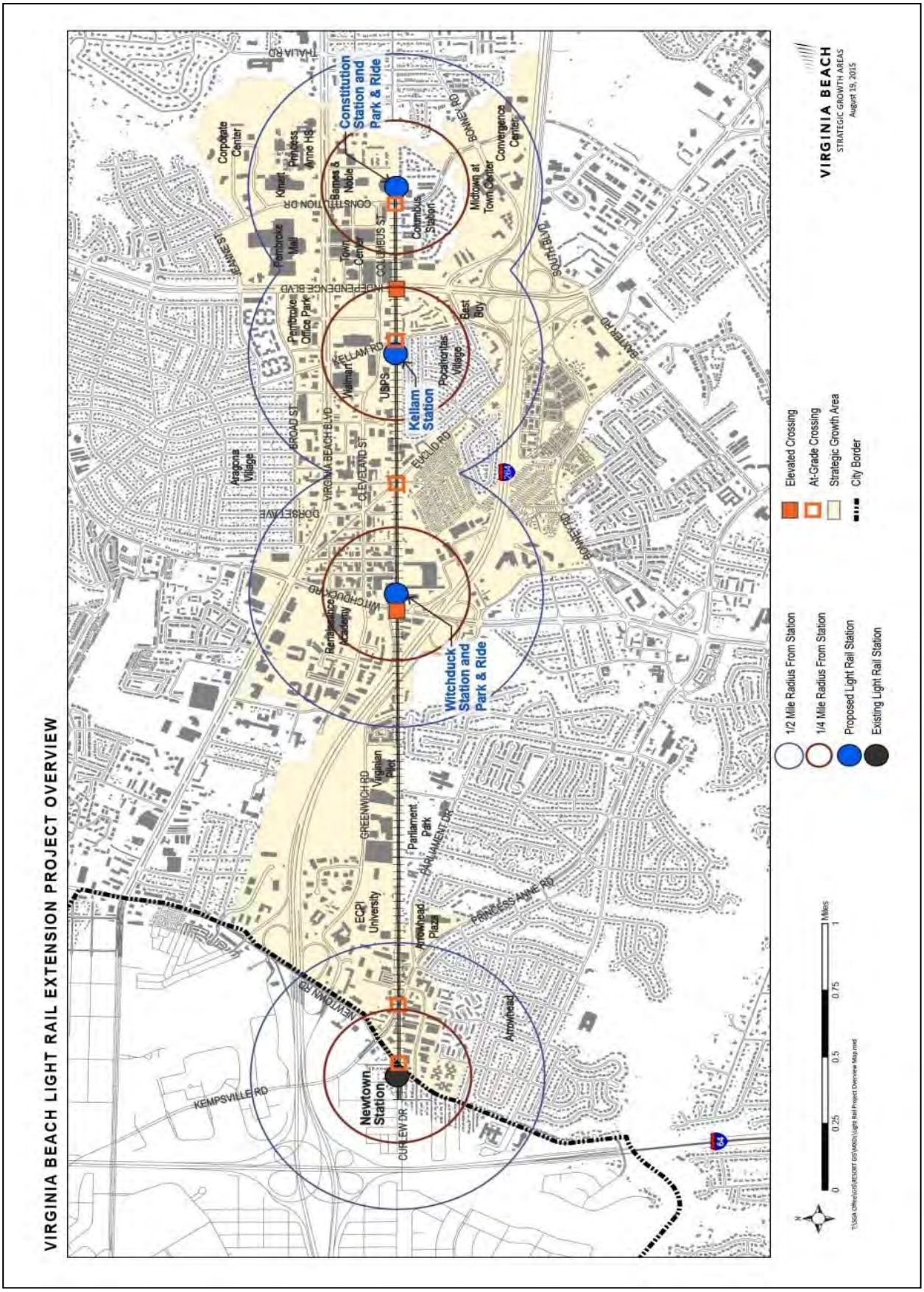
- A 3-mile extension of The Tide connecting Downtown Norfolk to Virginia Beach Town Center described above, thereby making the system truly regional, as intended, for the first time.
- Design of an end-of-line station that can be expanded to become a major passenger hub in which additional north/south and east transit corridors can logically interconnect. The City has studied the ridership potential of these extensions using the Federal Transit Association (FTA) STOPS model described later in this chapter.
- Design efforts are underway for the development of a shared use pathway running parallel to the light rail corridor to enhance connectivity between stations, along with the trail connectivity benefits as a multi-modal corridor.
- Walking/biking audits are underway for the SGAs and will form the basis of necessary infrastructure improvements to provide first mile/last mile connectivity to the transit

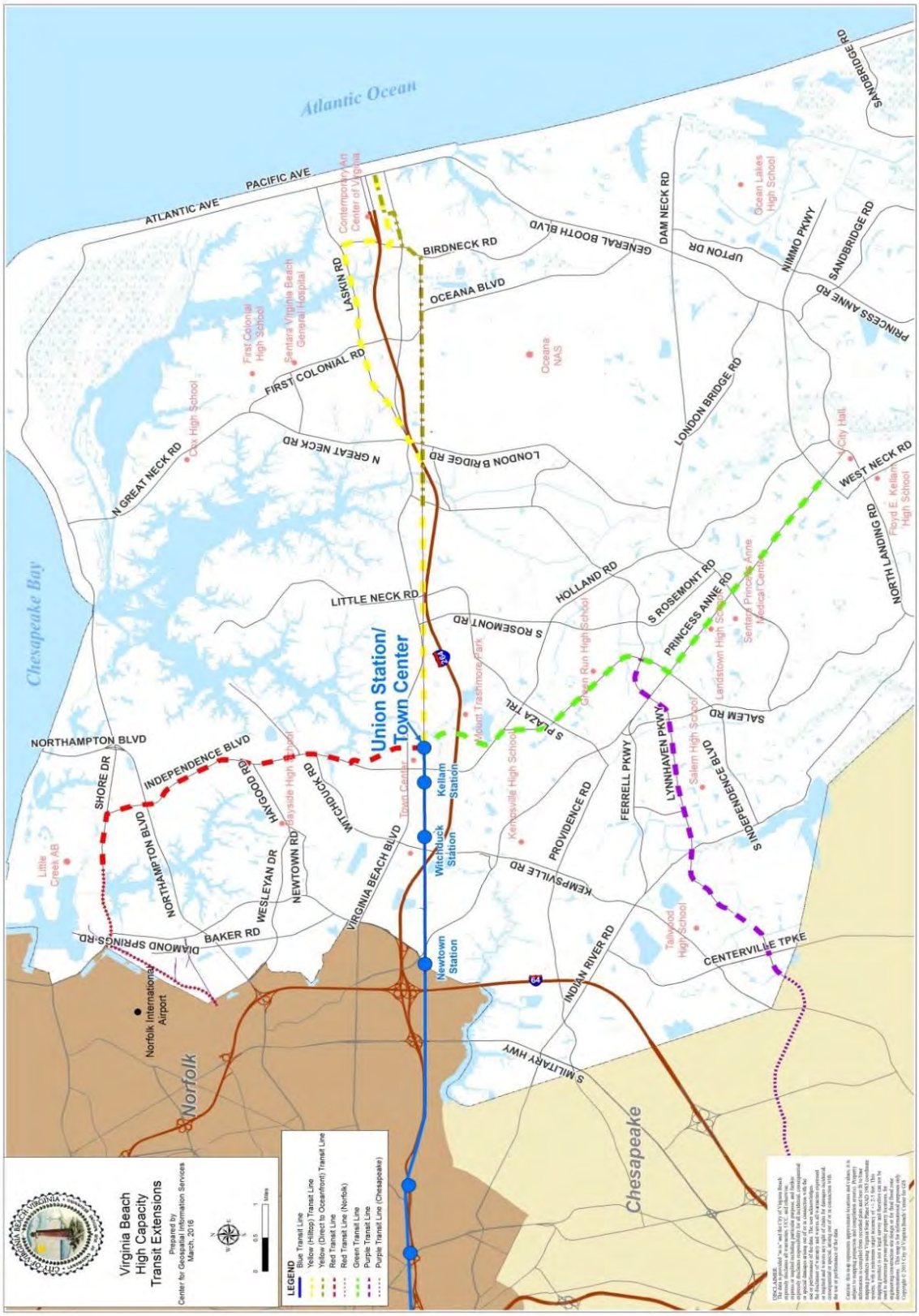
stations and bus stops along the initial Tide segment, and eventually to all of the SGAs and future transit station locations.
- An approximate doubling of the feeder bus network for The Tide extension will effectively double bus service within the City by establishing two new routes and increasing the timespan and frequency of several routes to match The Tide system operating schedule.
- Strategic land use planning and economic development to maximize transit-oriented development (TOD) along the transit rail corridor and future high capacity transit corridors connecting the SGAs. This growth strategy will focus the most intense development in these appropriate areas and help preserve the character of the City's Suburban and Rural Areas.

To further evaluate the feasibility of High Capacity Transit along various transportation corridors of the City, the Federal Transit Authority (FTA) STOPS (Simplified Trips-on-Project Software) program was utilized to model potential future transit ridership. STOPS is a stand-alone software package that applies a set of travel models to predict detailed transit travel patterns for the various transit extensions ; quantify the trips-on-project measure for all travelers and for transit dependents; and, compute the change in automobile VMT based on the change in overall transit ridership between the two scenarios.

The Virginia Beach High Capacity Transit Extension Map shown below indicates the approximate location for future extensions to the Newtown to Town Center alignment that is currently under detailed study. The modeling results indicate that the proposed alignments warrant inclusion in the Comprehensive Plan with recommendations for additional detailed study. Details associated with the modeling exercise are included in the Comprehensive Plan's Reference Handbook. Below is a brief description of the various alignment alternatives:

- The Blue line represents the Newtown Road to Town Center extension that is currently under detailed study.
- The Orange line represents the eastward extension of the Tide to the Oceanfront.
- The Green line serves the central spine of the City connecting Town Center to the north with Princess Anne Commons and the Municipal Center to the south.
- The Red line serves the central spine of the City from Town Center in the south to Joint Expeditionary Base Little Creek to the north. This alignment then turns west and south to potentially service Norfolk International Airport.
- The Purple line serves the vast suburban residential areas of Kempsville from an approximate midway point in the Green line to a potential connection with the City of Chesapeake.


VIRGINIA BEACH LIGHT RAIL EXTENSION PROJECT OVERVIEW
Newtown Station
Witchduck Station and Park & Ride
Kellam Station
Constitution Station and Park & Ride
Virginian Pilot
Parliament Park
ECPI University
Arrowhead Plaza
Arrowhead
Renaissance Academy
Aragona Village
Pembroke Office Park
Pembroke Mall
Town Center
Columbus Station
Midtown at Town Center
Convergence Center
Corporate Center
Princess Anne HS
Barnes & Noble
Best Buy
Pocahontas Village
Walmart
USPS
KEMPSVILLE RD
NEWTOWN RD
CURLEW DR
GREENWICH RD
PARLIAMENT DR
PRINCESS ANNE RD
WITCHDUCK RD
DORSET AVE
BROAD ST
VIRGINIA BEACH BLVD
CLEVELAND ST
EUCLID RD
KELLAM RD
INDEPENDENCE BLVD
CONSTITUTION DR
COLUMBUS ST
JEANNE ST
THALIA RD
BONNEY RD
SOUTH BLVD
BAXTER RD
264
64
1/2 Mile Radius From Station
1/4 Mile Radius From Station
Proposed Light Rail Station
Existing Light Rail Station
Elevated Crossing
At-Grade Crossing
Strategic Growth Area
City Border
0
0.25
0.5
0.75
1
Miles
VIRGINIA BEACH
STRATEGIC GROWTH AREAS
August 19, 2015



VIRGINIA BEACH HIGH CAPACITY TRANSIT EXTENSIONS
precise lines and stations subject to further study

Regional & Local Bus Transit

The "Connect Hampton Roads" initiative found that reliable, frequent, and accessible local bus serves as the backbone of every successful transit system. The report describes the condition of the region's current bus system as inadequate, with routes that do not effectively connect across city boundaries~~,~~ and operating with inconsistent times, days, and frequencies. Below are the types of HRT bus routes that currently serve the City of Virginia Beach:

- *Fixed Regular Routes* – Regular routes at scheduled times and days of operation and service hours vary by route. There are currently 11 fixed routes within Virginia Beach.
- *MAX Express Routes* – The MAX, or Metro Area Express, is a regional express service connecting commuters to cities across Hampton Roads. It offers an economical, stress-free, fast ride to major employment centers from established park and ride lots. There are currently 5 fixed routes that pick up Virginia Beach residents at the Oceanfront, Silverleaf Park and Ride lot or the Indian River Park and Ride lot and take riders to major employment centers, such as the naval bases, shipyards, and Downtown Norfolk with limited stops. The Max routes cost twice the fare of traditional buses but provide limited stops and extra comfort such as free Wi-Fi. Passengers can also partake in the guaranteed ride home program.
- *Seasonal Bus Routes* – In Virginia Beach, there are 3 special shuttle routes to support the concentration of visitors at the Oceanfront. Efforts are underway to expand these shuttle service operations to include new routes from the Oceanfront to the Shore Drive/Great Neck Road business area, and a shuttle to supplement light rail and make connections in the Town Center area.
- *Special Event Shuttles* – HRT operates shuttle service for several special events within Virginia Beach, since parking is best planned to accommodate average daily visitation for general areas, rather than during peak periods or at specific venues that experience extreme congestion during events.

HRT Atlantic Avenue Trolley

Virginia Beach shares the most utilized bus route in the region with the City of Norfolk (Route 20). Route 20 connects the Oceanfront to Downtown Norfolk and serves approximately 5000 passengers daily. It has the greatest frequency and time duration of all the Virginia Beach routes. This route parallels the proposed light rail extension and bisects six of the City's eight SGAs. Most of the remaining routes serve the City's Suburban Area with hourly headways and five days a week daytime service. The current bus route map for the City can be found in the Technical document.

The City has begun to incrementally fund enhanced services with the recent extension of evening hours on two of the suburban routes. The short term strategy to increase bus ridership will be to implement the feeder bus service for the light rail extension as depicted in the Virginia Beach Transit Extension Study, by HRT [viii]. The map below shows the feeder bus network with the various transit extension options.

The feeder bus network targets new service along Witchduck Road/Kempsville Road (Route 35) from the Chesapeake's Greenbrier area to the proposed Witchduck Road station. An additional newly configured Route 39 would link Sentara Princess Anne Hospital, Lynnhaven Mall, the Hilltop SGA, and the Oceanfront. Numerous routes in the eastern portion of the City will connect to a new express bus service, which will operate from the Oceanfront to the proposed Town Center station. Bus service on seven of the City's eleven fixed routes would have greatly expanded service times and days to match the operating characteristics of light rail (*see Proposed Feeder Bus Network map below and the Comprehensive Plan's Technical Report for more details regarding the proposed bus improvements*).

Recognizing the need for transportation services to be aligned with affordable housing and community services, maps are included in the Comprehensive Plan's Technical Report that show the location of facilities for senior's care, community services, and other transit dependence indicators.

HRT and the City of Virginia Beach have acknowledged that, to improve transit services, there is a need to address basic infrastructure needs. Clean, safe, and comfortable waiting areas at light rail stations and bus stops are essential to an effective transit system. The City has an extremely low percentage of bus stops with shelters for weather protection. This is due to a combination of low funding and low ridership for justification purposes. Currently, the City has approved funding to effectively double the number of bus stop shelters within an approximate 5-year period. HRT has a similar strategy to increase the number of shelters regionally, particularly at high volume stops. A map showing the location of existing and proposed shelters for implementation in next 5 years is included in the Comprehensive Plan's Technical Report.

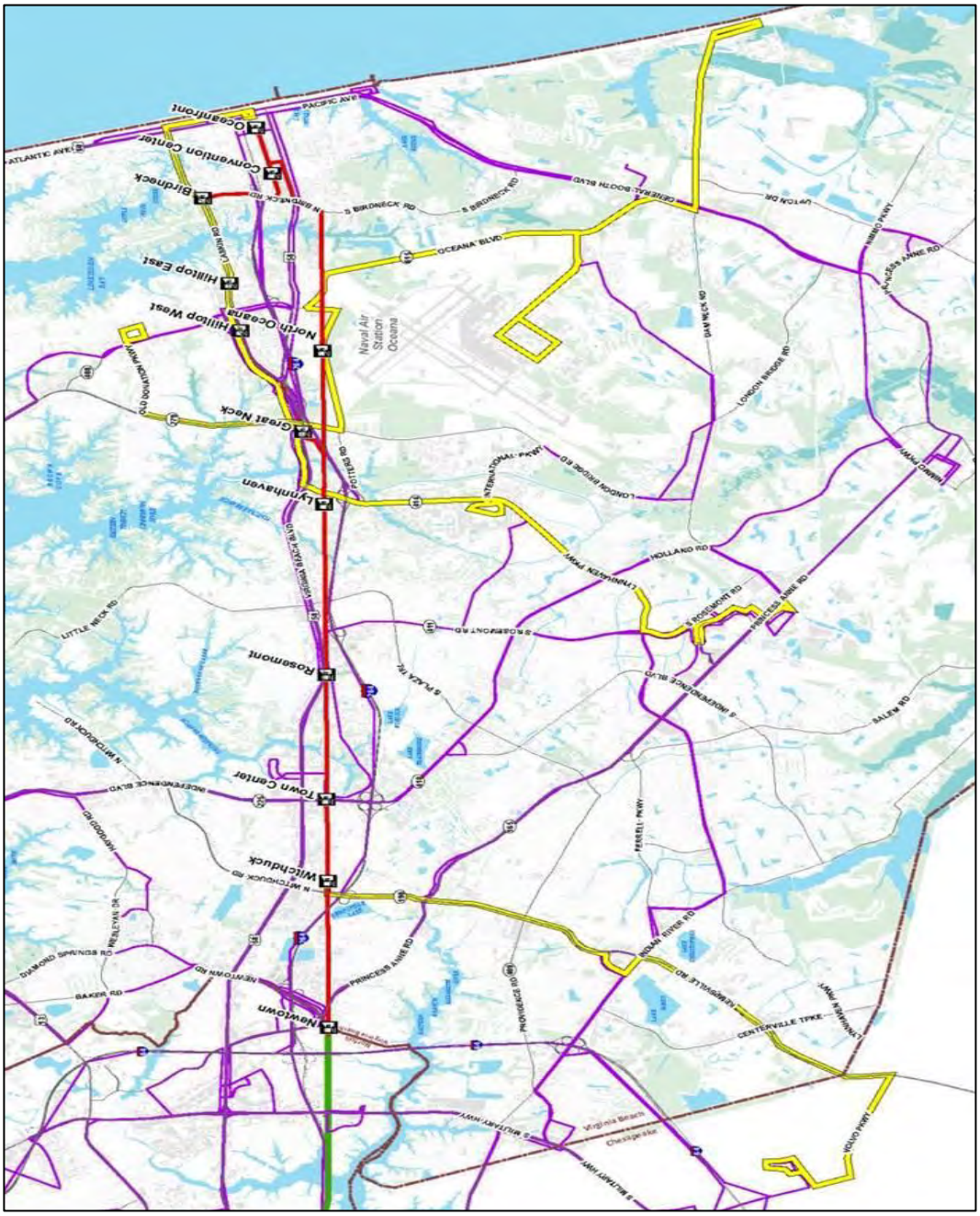
Paratransit

HRT Paratransit Vehicle

The American with Disabilities Act of 1990 (ADA) requires localities to provide "comparable transportation service for individuals with disabilities, who are unable to use fixed route transportation systems." [ix] HRT provides Active Paratransit customers a demand-response service along its fixed-route services. The service is provided origin-to-destination within ¾ mile of the fixed bus routes and utilizes a variety of vehicles. Paratransit service is reliant on the fixed route bus service, because any changes in the HRT bus routes will affect the paratransit service area. Paratransit service currently accounts for approximately 1/6 of the City's entire budget devoted to transit. The service can be unpredictable for annual budgeting purposes. Paratransit usage continues to increase at a rate significantly higher than bus or light rail.

There are approximately a dozen private companies, charitable organizations, and community social service agencies that also provide transportation services to serve clients who might

otherwise utilize paratransit. On demand transportation providers, such as taxicabs, Uber, Lyft, and App-A-Cab also have services that may benefit senior community and disabled persons.



Proposed Bus Feeder Network
yellow lines indicate new routes

Recommended Policies: Transit

- Support the increased frequency of Amtrak train service to both the Southside and Peninsula to connect Virginia Beach and the region to Richmond, the Northeast Corridor, and the soon-to-be enhanced Southeast Corridor.
- Align Transportation Improvements and Services with affordable, accessible housing and community services through the following recommendations:
  - Provide public transit service to as many transit dependent users as possible through major bus operations restructuring with the completion of light rail and thereafter, concurrent with the annual review process. Transit dependent users include, but are not limited to, persons 65 or over, persons at or below the poverty line, and persons who have no car available.
  - For compliance with new Code of Virginia Section 15.2-2223, provide public transit service to the following transit dependent locations, including but not limited to, adult daycare, assisted living, dialysis centers, human services, libraries, nursing homes, senior residences. Enhance ADA- compliant pedestrian infrastructure from transit dependent uses to transit stations/stops to provide convenient access to transit routes and limit expensive paratransit service.
  - Discourage the approval of multi-family or group home development applications that are located over ½-mile from a fixed transit route. Although the current HRT standard for the provision of paratransit services is ¾-mile, it is necessary to provide the suggested walkable distance to accommodate many of the transit dependent users who may not be eligible for paratransit service. Many studies indicate that ½-mile is the maximum distance one should walk to access transit services.
- Bus Stop Accessibility and Shelter Improvements:
  - Continue to coordinate with HRT to increase the number of bus shelters within Virginia Beach from its current coverage of approximately 5% of all stops to 10% within the next 5 years and doubling this new amount by the year 2040.
  - Continue to enhance bus shelter/transit station design to include enhanced lighting, bicycle storage, and signage/real time information regarding schedules.
  - Consider the needs of the disabled persons and seniors' community when deviations are considered for transit routes. Maintain a paratransit service area map reflecting the ¾-mile service radius from City transit routes. Discourage uses with likely transit-dependent persons from being developed in areas outside of a ½ mile radius of a fixed route, especially multi-family residential development, age-restricted, senior or assisted living communities, employment centers, and medical and educational institutions.
  - Continue to enhance the ADA-compliant pedestrian infrastructure, particularly along transit routes, to better serve the senior/disabled persons and reduce the cost of expensive paratransit service.
- Alignment of Land Use and Economic Development Initiatives with Transportation Improvements:
  - Encourage mixed-use development throughout the Urban and Suburban Areas and encourage the highest density development within the City's Strategic Growth Areas. This form of development will induce the highest ridership for public transit and many shorter trips can be made by foot or by bicycle.

Agenda for Future Action Recommendations: Transit

- City Council has adopted a Locally Preferred Alternative to extend The Tide from the Newtown Road station in Norfolk to terminate at a new station in Town Center near Constitution Avenue. Plan for the future extension of this high capacity transit system as follows :
    - East to the Oceanfront
    - North to Joint Expeditionary Base Little Creek and south and west to Norfolk International Airport area
    - South to Princess Anne Commons and the Municipal Center
    - West to Chesapeake
- Evaluate appropriate technology for these high capacity corridors include light rail, maglev, bus rapid transit and others that depend on a rail or similar fixed guideway that separates the transit from normal vehicular use.
- Light Rail System Planning - Construct the eastern terminus of the light rail station proposed at Constitution Avenue so that it can easily be expanded to serve as a major passenger hub, with enhanced amenities and platforms to serve future east, north, and south high capacity transit corridors.
- Establish an east-west multi-modal corridor - Develop a shared use path generally within the old Norfolk Southern railroad alignment from the Newtown Road light rail station to Town Center. Study extension of this path along this railroad alignment to the east of Town Center. This proximity will allow for greater connectivity to light rail stations and greater multi-modal choice (see also see Active Transportation recommendations).
- Light Rail Station Connectivity - Enhance pedestrian/bicycle connections to all high capacity transit stations and bus route stops to provide safe access and enhanced modal choice.
- Proactive Bus Service planning recommendations:
    - Coordinate annual evaluation of new bus routing, frequency of service, and duration of service. In the near future (within 5 years), implement the proposed feeder bus network needed to serve the light rail extension from Norfolk to Virginia Beach Town Center.
    - Enhance local bus service to become a viable option for people who could choose to drive, otherwise referred to as "choice riders." The provision of frequent, reliable, comfortable service can reduce single occupancy automobile travel and, thus, address traffic congestion and reduce the need for additional construction of highway lane miles.

ACTIVE TRANSPORTATION

"Active Transportation" is the combination of walking, bicycling, and other use of other non-motorized wheeled vehicles that may benefit from the same infrastructure. Benefits can include:

- healthy activity and improved fitness
- increased social interaction and engagement
- reduced use of fossil fuels and the concomitant reduced pollution
- reduced costs of living

The vision for active transportation in Virginia Beach, adopted in the *2011 Bikeways and Trails Plan* reads:

Virginia Beach will be a City where people can walk, run and ride anywhere safely, efficiently and enjoyably.

Virginia Beach developed in the 1960s thru the 1990s with a suburban pattern that fostered the development of residential neighborhoods that, in some cases were isolated from the adjacent areas. This, in part, led to development of a transportation network that relied more and more on higher speed roadways to span the larger distances between the starting and ending points of trips. As this network developed, biking and walking as useful modes of transportation were not as much in the forefront of design, often including small narrow sidewalks as the primary pedestrian/bicycling infrastructure.

Atlantic Avenue

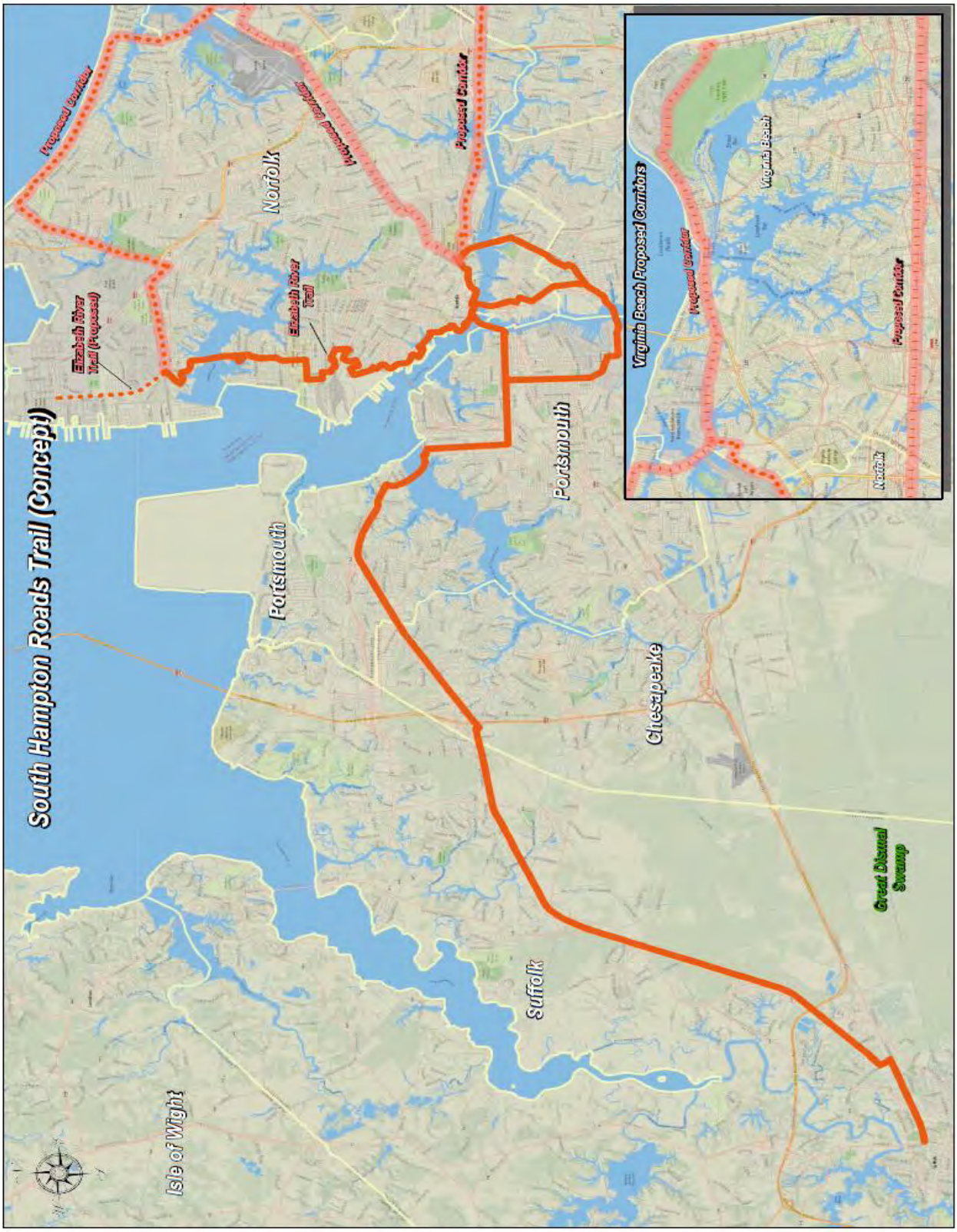
Virginia Beach's historically predominant suburban-style development model can make walking and biking challenging for the following reasons:

- Distance. Work centers are scattered, with limited aggregation of large employment centers, like Town Center/Pembroke and the Resort SGAs~~,~~ and the military bases that draw the majority of workers. Therefore, it is harder to match facilities to predictable work commutes. If employment is not close to home, the commute can be long. Regionally, 46% of workers commute to work in a different city than where they live.
- Lack of desirable facilities. Casual bike riders generally need continuous, connected facilities that match their comfort level from end to end of each trip. At present, the City's system of sidewalks, bikeways, and trails is not yet consistent in providing that continuity.

- Perceived threats from traffic. Most of the larger roads have speed limits of 45 miles per hour, with large volumes of traffic moving at least that fast. Few cyclists are comfortable in such conditions for on road cycling, and those that do often report hostile behavior from motorists.
- Neighborhood islands. Many neighborhoods are like islands surrounded by obstacles such as waterways and high-speed, high-volume roadways. Casual cyclists cannot get far without the challenge of navigating a major roadway or other hindrance.
- Interstate barriers. I-264 is a barrier running east-west across Virginia Beach, and I-64 does the same across the western portion of the City and leading into Norfolk and Chesapeake. Commuting across these barriers is very difficult, funneling cyclists and pedestrians into limited crossing spots, some of which can be difficult and dangerous. For cyclist commuters who work in Downtown Norfolk and in Chesapeake's Greenbrier area, it can be hard to reach these destinations.

Virginia Beach is not an island and our active transportation system needs to coordinate with our neighbors in Chesapeake, Norfolk, and North Carolina, as well as beyond. Several initiatives are underway, and the staffs of the cities are collaborating on a variety of new connections:

- South Hampton Roads Trail[x] (SHRT) will run 41 miles from the Oceanfront connecting the downtowns of Virginia Beach, Norfolk, and Portsmouth, and through Chesapeake to Downtown Suffolk (*see concept plan map below*).
- Beaches to Bluegrass Trail (B2B)[xi] is in planning stages with both the Virginia Department of Conservation and Recreation and Virginia Department of Transportation. It will be a "braided trail" following the SHRT, extending all the way to Cumberland Gap at the westernmost end of Virginia.
- The East Coast Greenway[xii] (ECGW) does not enter Virginia Beach, but connects to both SHRT and B2B, providing north-south connectivity from Maine to Florida.
- Bike Route 76 (BR76) spur[xiii] The Transcontinental Bike Route runs from Astoria, Oregon to Yorktown, VA. Many cyclists, who have made the journey east, and are starting their westward journey, want to do a "wheel dip" in both oceans as part of the journey, and thus they opt to begin or end their treks at the Virginia Beach Oceanfront. Creating a spur route would formalize this and provide direction for them.
- Blueways and Greenways. While sidewalks, bikeways, and trails are obvious elements of an active transportation system, blueways and greenways are growing as components too. In Virginia Beach, we are developing the Thalia Creek Greenway around Town Center. The Green Sea Byway is a wide swath running from Chesapeake to Sandbridge, generally parallel to Indian River Road.
- The *2040 Regional Long Range Plan and Map*, prepared by the Hampton Roads Transportation Planning Organization (HRTPO), includes a new Active Transportation component[xiv]. This plan highlights the many planned active transportation connections within the various localities.



GENERAL ALIGNMENT OF SOUTH HAMPTON ROADS TRAIL (CONCEPT)

Recommended Policies: Active Transportation

The vision adopted in the *2011 Bikeways and Trails Plan* still applies. This vision leads to several broad policy initiatives about how to move forward:

- Continue to implement projects using the Complete Streets policy in accordance with the City's Administrative Directive.
- Continue to prioritize active transportation facilities through the Capital Improvement Plan, the development review process, federal/state grant programs and opportunities present with the maintenance/upkeep of roads and linear utility corridors.
- Focus on facilities that serve the middle majority of active transportation users.
- Focus on continuity and connectivity within the existing system, beginning with a gap analysis.
- Enhance the bike safety and pedestrian safety educational efforts in schools, for visitors, and to the general public.
- Support regional trail systems, especially the South Hampton Roads Trail, Beaches to Bluegrass, and BR76 spur, each of which ties to the paths along the City's proposed light rail corridor.

Agenda Items for Future Action Recommendations: Active Transportation

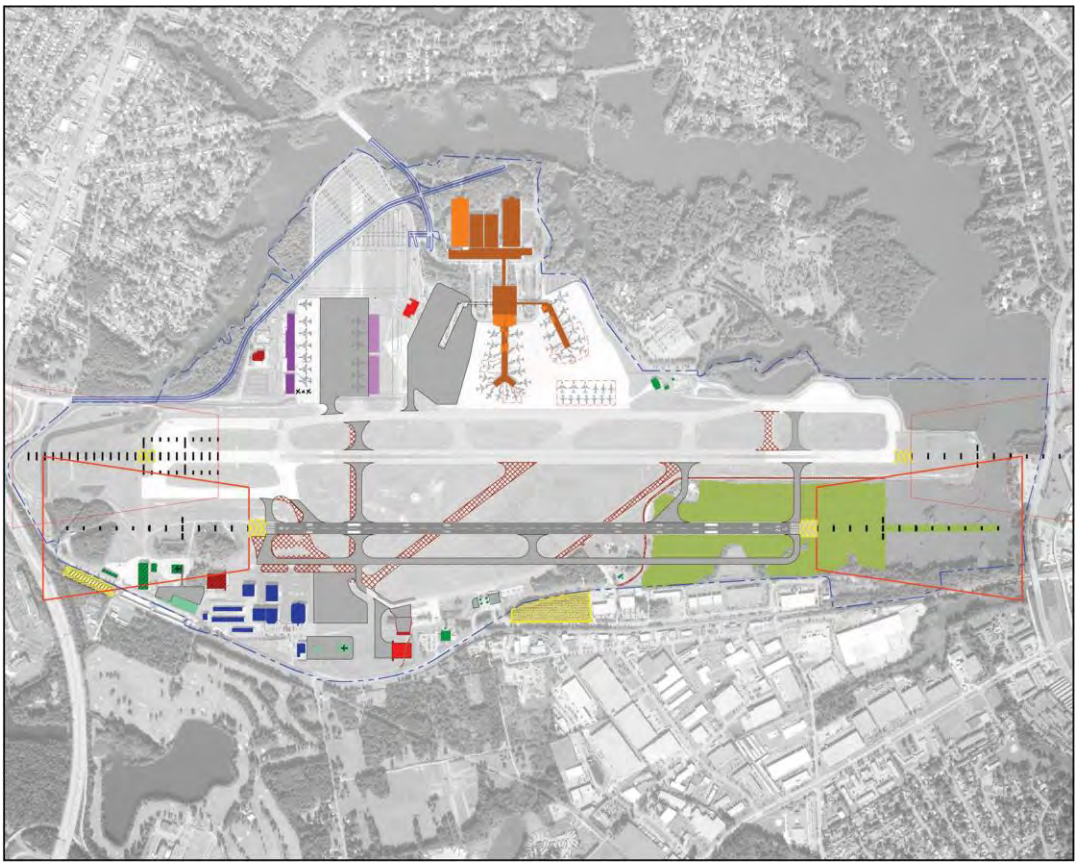
- Develop a study to identify additional and improved crossings of I-264 and I-64 to serve both the existing demand and the likely increases in demand for active transportation modes as The Tide extension begins service. The most urgent specific connection is in the Town Center area, to relieve the hazardous crossings along Independence Boulevard.
- Continue to utilize the City's Bikeways and Trails Plan [xv] [xvi] [xvii] as the guiding active transportation policy document and initiate a plan update.

OTHER MODES OF REGIONAL TRANSPORTATION

Air Travel

Air travel for Virginia Beach residents and businesses is primarily through Norfolk International Airport. The airport experienced a drop in passengers of 24% from 2005-2014 [xviii]. Nationally, airport passenger levels have increased by 3% during the same ten years. A substantial reason for the decrease in passengers was the increase in the average airfare. In 2005 average airfares were $304 which was similar to the national average. By the end of 2014, the average airfare had increased 52% to $463 which is well above the national average of $393. Other factors in passenger and flight reductions include fewer trips made by the military and the negative impacts of airline consolidation. Results from these consolidations left the two Hampton Roads Airports with nine fewer nonstop destinations and 54 fewer daily flights offered when compared to 2006.

The Norfolk International Airport Master Plan was most recently updated in December 2008 and is intended to provide the Authority with a plan that identifies necessary capital improvements *(see Master Plan exhibit below)* [xix].



Norfolk International Airport Expansion Plan

The current update includes projects that will extend the useful life and value of the Airport to meet the air transportation needs of the Coastal Virginia region through 2024. Projections from this Master Pan indicated an annual growth rate in passengers of 2.6% per year, from 1.9 million in 2006 to nearly 3.3 million in 2024. Recent capital improvements at the airport include terminal renovations in 2014.

The FAA recently terminated the Environmental Impact Statement (EIS) for improvements at the Airport[xx]as not currently meeting the purpose and need. However, FAA continues to support the inclusion of these improvements in its Master Plan,

The purpose of the proposed improvements at Norfolk International Airport is to:

- To meet relevant FAA airfield safety standards and enhance airfield safety without reducing runway availability. Relevant airfield safety standards include:
  - Runway Safety Area, which is designed to provide additional safety in the event an aircraft leaves the runway;
  - Runway Protection Zone, which is area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground; and,
  - Runway Object Free Area, which is designed to provide an area clear of objects surrounding a runway.

- To enhance operational efficiency and maintain airfield utility while considering surrounding airspace and the Airport's critical design aircraft; and,
- To provide a safe, efficient southern vehicular access, on Airport property, to the Airport's terminal area.

Primary components of the Airport's proposed project include:

- Decommissioning and demolition of Runway 14/32.
- Constructing a relocated secondary parallel to and separated by 876 feet from the existing Runway 5/23. The proposed Runway 5R/23L would be 6,500 feet long by 150 feet wide.
- Access improvements to the Airport's passenger terminal area (on Airport property).

The location of the airport along the Norfolk/Virginia Beach line provides many residents and businesses with convenient access to air travel and its associated economic benefits. However, the adjacent Burton Station and nearby neighborhoods experience some negative impacts such as noise, cut through traffic impacts, overall environmental impacts and incompatible land uses. The Burton Station SGA Plan described in the land use section provides greater information regarding these benefits and impacts.

Ports

Over 19 million tons of general cargo, primarily transported in containers, was handled by the Port of Virginia (POV) in 2014, a record year. The amount of general cargo handled by the Port has increased 19% between 2005 and 2014. The maritime industry also measures containerized cargo using a standard called "20 foot equivalent units, or TEU's. The POV ranked third highest among East Coast ports in volume (in terms of TEU's) of containerized cargo handled in 2014, and seventh highest among all US ports.[xxi]

The POV is comprised of four primary facilities in Hampton Roads (the photo below shows the locations within Hampton Roads):

- Newport News Marine Terminal
- Norfolk International Terminals
- Portsmouth Marine Terminal
- Virginia International Gateway Portsmouth

Although there are no Virginia Port facilities within Virginia Beach, many of the longshoreman and spin off businesses are located within the City. Like the Norfolk International Airport, the POV is impacted by national/international economic factors and competition from other ports. The POV is well positioned for additional growth. The Panama Canal expansion will be open by 2016 and Hampton Roads is one of the few East Coast ports that can serve the largest ships. Additionally, there have been recent rail expansions to handle additional cargo.

Port of Virginia

The *2040 Master Plan* is POV's infrastructure investment strategy to create economic benefits and unconstrained growth opportunities to Virginia through maritime commerce [xxii].Critical components of this strategy include:

- Expanding terminal capacity at a sufficient pace to keep up with growing demand.
- Remaining flexible to new opportunities and conditions.
- Coordinating terminal access improvements with state transportation and economic development plan.

The POV attracts diverse businesses seeking efficient access to growing markets via international trade lanes and inland freight corridors. It is well-positioned to continue capturing a significant share of future container cargo growth due to its excellent facilities, shifts in global trade patterns, and efficient intermodal connections.

Economic activity related to the POV currently employs more than 343,000 Virginians, with $13.5 billion in compensation, and generates $41.1 billion in revenues and $1.2 billion in taxes. As port capacity increases, growth in trade-related businesses will spur further growth in local businesses, creating more jobs, economic activity, and opportunities for a prosperous Commonwealth. Competitive participation in the global market depends in part on being able to efficiently transfer goods through Port facilities. Business growth will result in greater need for terminal facilities. The POV, in its mission to stimulate maritime commerce, will use the *2040 Master Plan* to ensure the capacity to support growth in Virginia is available when it is needed. By 2040, demand for terminal capacity is forecasted to be over three times the existing demand (2.1 million TEU today vs. 7.2 million TEU in 2040). Existing capacity must more than double to meet forecasted demand (3.4 million TEU existing).

Capacity improvements will initially be achieved at APMT and NIT (4.6 million TEU total build out capacity), but further growth must look to the construction of new terminals, or the redesign of

existing terminals, in order to provide the 2.6 million TEU remaining shortfall in capacity. The *2040 Master Plan* schedules the projects and identifies the funding necessary to construct the improvements in time to meet demand.

Other Maritime

The Atlantic Intracoastal Waterway (AIWW) is a major maritime facility that accommodates a variety of commercial and recreational water uses within the City including:

- US Coast Guard
- Federal Law Enforcement Training Center for Homeland Security
- Barge traffic supporting intermodal transportation to deep draft ports
- Military equipment and supply transportation barges and vessels
- Commercial fishing vessels and charter fishing vessels
- Cruise and tour boats
- Recreational vessels
- NOAA research vessels
- *Department* of Energy research vessels
- US Army Corps of Engineers and industry dredging vessels

The Elizabeth River system, the Lynnhaven River system, Back Bay, and Owl's Creek also provide a variety of recreational and commercial activities throughout the City.

Pungo Ferry Bridge over North Landing River (AIWW)

Freight

Trucks are the primary mover of freight within Hampton Roads. Roadway congestion adds to the operating costs of companies and shippers, impacting the economic competitiveness of the Port of Virginia, Hampton Roads, and the State of Virginia. The overall tonnage of domestic goods that will be moved into, within, and out of Hampton Roads by truck is expected to increase 65% from 66.9 million tons to 110.1 million tons between 2010 and 2040. HRTPO published a series of technical reports regarding freight and identified several major bottlenecks. Virginia Beach is fortunate to not contain one of these bottlenecks within its borders. However, all of the major routes out of Hampton Roads to the west of Virginia Beach contain major bottlenecks which affect many Virginia Beach residents and businesses.

General cargo volumes at the Port of Virginia continue to rise. About 30-35% of all containers handled by the Port of Virginia are transported by rail, which accounted for a total of 448,100 containers shipped by rail in 2014. This is up from 231,100 containers in 2009. The Hampton Roads network is owned and operated by two large Class I railroads (CSX and Norfolk Southern) and four smaller Class III railroads. With the increasing number of freight trains and the reintroduction of passenger rail into South Hampton Roads, safety and congestion at crossings are major concerns. There are 620 crossings, of which over 80% are at grade.

Recommended Policies: Other Regional Transportation Modes

- Support the implementation of the Port of Virginia's Master Plan to enhance the state and regional economy, while ensuring that the impacts of the port operations on the region are mitigated.
- Support the implementation of the Norfolk International Airport Master Plan to ensure its continued role in serving the Southside Hampton Roads with convenient air travel, while ensuring that future actions of the Airport properly consider the impacts on the adjacent built and natural environment. This includes opportunities to enhance multi-modal connections to and from the airport.
- Work with the US Army Corps of Engineers, the US-Coast Guard, and various other agencies to support maintenance and improvements that enhance water travel for both commercial and recreational purposes.

TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management, traffic demand management or travel demand management (all TDM) is the application of strategies and policies to reduce travel demand, specifically that of single-occupancy private vehicles, or to redistribute this demand in space or in time. Congestion in Virginia Beach, like that in most major US cities, is primarily concentrated during the morning, school hour, and particularly the afternoon rush hours. During off peak hours, many of the same roadways function at an acceptable level. In 2013, 82% of the commuters in Hampton Roads drove alone to work with a mean travel time of 24 minutes. Although-Hampton Roads and Virginia Beach employment centers are dispersed throughout the region, there are several large employments centers that lend themselves well to TDM strategies.

Because of these traffic patterns, some congestion could be alleviated by reducing demand during the peak hours. By increasing roadway capacity through relatively inexpensive technological improvements, such as signal coordination and "Intelligent Transportation Systems (ITS)" or the changing of traffic habits, more expensive road widening could be delayed or avoided. TDM congestion management strategies and a continued push for the use of alternative transportation modes are targeted at the reduction of congestion and the need for more road construction projects.

Many regional TDM programs are offered through the regional TRAFFIX program. TRAFFIX was established in 1995 and is supported administratively by HRT. TRAFFIX receives annual state funding and promotes a variety of programs and incentives, including the following: [xxiii]

- Carpooling and commuter matching

  Carpool matches have increased from 6,987 in 2010 to 14,952 in 2014.

- Guaranteed ride programs for anyone who gets to work by means other than driving alone

  The NuRide reward program is for anyone who gets to work by means other than driving alone. NuRide registrations have roughly doubled from 673 in 2010 to 1,258 in 2014 and even more impressive is the total trips recorded have increased from 96,211 in 2010 to 457,266 in 2014.

- Information regarding Park and ride/Park and sail lots

  VDOT owns and maintains several lots where commuters may park to join car/vanpools or take transit to their work destinations. There are two park and ride locations within Virginia Beach~~,~~ including Silverleaf (located at the intersection of Independence Boulevard and Holland Road) and Indian River (located at the intersection Indian River Road and Reon Drive).

- Vanpooling/leasing

- Teleworking or working from home

TRAFFIX works with area employers, including the military, to educate, develop, and implement transportation alternative programs for their employees.

Other effective TDM strategies include:

- Local ordinances that encourage mixed use development and integration of land uses to reduce the amount of distance between residential, work and other activities to make active transportation and transit choice alternatives.
- Parking pricing strategies to discourage use of automobiles and encourage the use of transit.
- Flexible work hours.

Transit and Active Transportation use are considered important components of TDM, as described in the previous sections.

Recommended Policies: Transportation Demand Management

- Continue to emphasize alternatives to road widening/new construction to alleviate congestion. Multi-modal transportation, ITS, and the various TDM strategies outlined in this chapter are the key alternatives to accomplish this.
- Strive for a per-capita net reduction of motor vehicle trips and trip distances.
- Continue to focus on changing land use development patterns to encourage mixed use and TOD development in appropriate areas throughout the City, particularly in the Strategic Growth Areas.
- Continued support of the TDM programs such as the region's "TRAFFIX" program, which offers programs and incentives for car/van pooling and other trip reducing services.
- Encourage and provide incentives for employers to reduce peak hour demand by utilizing flexible or off-peak work schedules and telecommuting.

Agenda for Future Action Recommendations: Transportation Demand Management (TDM)

- Develop a comprehensive TDM Plan, including telecommuting, flexible work schedules, and off peak business hours, especially in the City's main employment centers. Utilize TRAFFIX staff to survey major employers in these centers to formulate the TDM plans with necessary incentives.
- Recognize and reduce the impacts of parking supply on travel demand by developing new fee-based parking strategies and regulations in appropriate areas with good transit service.

INTELLIGENT TRAFFIC SYSTEMS (ITS)

Even since the late 2000s, there have been substantial technological advancements that have improved or otherwise made information easier to obtain to make travel decisions. This section describes both the regional and local implementation of this technology by discussing the City's Traffic Management System; the effect of Mobile Apps; the City's Parking Management approach; a variety of Future Trends in transportation; and, and recommended future action items.

Various cities throughout the region maintain ITS infrastructure as part of their transportation management systems. At a regional level, VDOT maintains infrastructure at nearly every mile along the interstate highway. Technology currently in use by VDOT includes:

- *Transportation Operation Centers* – Centers that incorporate various ITS technologies to assist staff with traffic monitoring, incident response, and information dissemination.
- *CCTV Cameras* – Provides roadway images to transportation operations centers and the public.
- *Vehicle Detection Devices* – Records traffic volumes and speeds. Notifies transportation operations center staff of congestion and incidents.
- *Electronic Toll Collection* – Allows travelers to pass quickly through special lanes, avoiding backups and delays due to paying tolls.
- *Reversible Roadway Gates* – Allows traffic on limited access roadways to be reversed based on commuting patterns, maximizing the use of the existing roadway.
- *511 Virginia* – Provides up-to-date traveler information via telephone, the internet, and other methods.
- *Transit Automatic Vehicle Location (AVL)* – Provides the location of transit vehicles, aiding on-time performance.
- *Emergency Vehicle Signal Preemption* – Changes the traffic signal when emergency vehicles approach, improving the safety and response time of emergency vehicles.
- *Changeable Message Signs* – Provides up-to-date information to the traveling public.
- *Advanced Signal Systems* – Improves the coordination and timing of traffic signals in a corridor or throughout an entire city, reducing the number of stops and delays. [xxiv]

In January 2006, the City of Virginia Beach formed the Traffic Management Center (TMC). The TMC has a direct connection to VDOT's TOC, which allows for data and video sharing. [xxv] The TMC facilitates a transportation communication network applying technology and engineering to traffic management and disseminating traffic related information. The City of Virginia maintains a traffic management system which:

- Consists of a 100-mile fiber optic cable backbone, 50-miles of twisted pair copper cable, and 54 closed-circuit television cameras;
- Controls all of the city's 380 traffic signals;

- Provides a connection to the Virginia Department of Transportation's Traffic Operations Center (TOC), and will provide the City of Virginia Beach with direct access to video from the TOC'S interstate cameras;
- Includes seven permanent, changeable message signs and 50 systems detectors (to detect instantaneous changes in traffic flow); and,
- Features traffic data collectors to provide information for analysis.[xxvi]

Mobile Apps

In the age of smartphones, apps have become a commuter's modern-day compass. Mobile apps are transforming the way we travel and how we think about mobility. A wealth of travel related information is now at the fingertips of all commuters. We are only beginning to value the data generated from and the utility of these apps. The creation of real-time and historical data may shape the future landscape of our transportation networks and transform the way we currently travel. The apps are inclusive of all types of travel modes and, in some cases, have the ability to streamline those travel modes into one seamless journey.

Parking Management

The Virginia Beach Parking Management Office manages more than 8,250 off-street spaces in eight parking garages and ten surface lots at the Oceanfront (Resort), Croatan Beach, Sandbridge Beach, Little Island, and Town Center. These locations are intended to accommodate long-term parking use and to provide overnight parking. Monthly leases are available at the Oceanfront and Town Center garages. Weekly leases are available at the Oceanfront garages to accommodate hotel guests that have multiple vehicles. When there is coordination of effective parking management with transit infrastructure and services, it can have a combined positive impact on traffic congestion.[xxvii] Currently, the City of Virginia Beach has implemented the use of this app at on-street parking locations at the Oceanfront. "Parkmobile" allows users to start and manage parking transactions using a mobile app. [xxviii]

Smarter Systems

The future of traffic management systems will improve vastly with advances in technology. Adaptive traffic signal control technology, otherwise known as smart traffic signals, will both reduce harmful vehicle emissions and travel times. New technology combines concepts of artificial intelligence and traffic theory to allow traffic signals to communicate with one another and adapt to traffic conditions in real time. States are adopting active traffic management (ATM) systems. These systems are found on interstate highways and consist of a system of computer software, sensors, and cameras. The system is built to recognize issues and reduce secondary accidents. In Virginia, an ATM pilot is currently in use on I-66. The system uses overhead lane signs to provide advance notice of traffic conditions, such as:

- Variable speed limit signs direct drivers to incrementally reduce their speeds
- Symbols direct drivers to change lanes due to lane blockage
- Overhead message signs warn drivers of slowdowns, backups and collisions ahead[xxix]

Emerging technologies in Information and Communication (ICT), Global Positioning Systems (GPS), and ITS will continue to advance and affect the way we currently travel. Communicating real-time traffic information has become instantaneous with digital platforms provided by the internet. Most

state Departments of Transportation use social media and mobile apps to communicate time-sensitive traffic and travel information to a broader audience than in decades past. [xxx]

Connected Vehicles

Research is currently underway by the United States Department of Transportation (USDOT) and National Highway Traffic Safety Administration (NHTSA) to develop connected vehicle technology, including vehicle-to-vehicle (V2V) technology. Connected vehicle applications provide connectivity between vehicles, infrastructure, and wireless devices to prevent crashes, reduce carbon emissions, and promote continuous real-time connectivity. Vehicle safety applications will provide data such as speed and location flowing from nearby vehicles. Vehicles will identify risks and provide drivers with warnings to avoid other vehicles preventing collisions involving rear-end, lane change, and intersection crashes. [xxxi]

Vehicle Automation

In June 2015, Governor Terry McAuliffe announced efforts to move forward with an automated industry partnership. The partnership includes VDOT, the Department of Motor Vehicles (DMV), the Virginia Tech Transportation Institute (VTTI), and Transurban. As a result of the work, the Commonwealth will create Virginia Automated Corridors (VAC). The new initiative will streamline the use of Virginia roads and state-of-the-art test facilities for automated-vehicle testing, certification, and migration towards deployment. [xxxii] A more detailed description of vehicle automation is provided in the Technical Report.

Recommended Policies: Intelligent Transportation Systems (ITS)

- Utilize Intelligent Transportation Systems (ITS) to maximize the efficiency of the existing transportation system.
- Encourage the use of ITS to optimize road capacity, in conjunction with VDOT and regional efforts. Examples of ITS include traffic signal systems, variable message signs, traffic cameras and electronic toll collection.
- Consider leveraging third party traffic data and analytics for real-time traffic management, incident response how data from apps and other credible sources can assist in future planning and predicting trends.
- Continue to develop technology to manage varying transportation needs that take into consideration the characteristics of urban development areas.
- Continue to support ITS technology as developed and maintained by VDOT at the regional level.
- Work in unison with all Hampton Road cities, the Hampton Roads Transportation Planning Organization (HRTPO) and VDOT to improve effective regional planning with coordination provided through the Transportation Operations Committee (TOC).

Agenda for Future Action Recommendations: Intelligent Transportation Systems (ITS)

- Update plans for traffic signalization every three years.
- Monitor trends regarding emerging technologies in the area of Information and Communication (ICT), Global Positioning Systems (GPS), and ITS. Stay current with trends in ITS to develop it as an on-going resource for transportation network infrastructure.

- Create parking strategies that merge technology and infrastructure. Adopt innovations to deliver live parking data to citizens including heat maps that can show drivers available parking on a block-by-block basis. Consider dynamic meter pricing raising the price for on-street parking during peak time to make some spaces available. When spaces are available, drivers spend less time searching for parking.
- Consider developing dynamic pricing mechanisms for roads, parking spaces, and shared-use assets to balance supply and demand.
- Continue to develop and implement adaptive signal control in coordination with FHWA. The City is currently developing an application and is awaiting approval from FHWA.
- To promote the use of local transit, consider equipping parking garages with more internal directional signage to show the location of transit stops.

2.2 - ENVIRONMENTAL STEWARDSHIP FRAMEWORK

CITY OF VIRGINIA BEACH ENVIRONMENTAL STEWARDSHIP GUIDING PRINCIPLES

- Preserve, protect and maintain our natural resource areas.
- Improve stewardship of our natural resources.
- Protect our most vulnerable citizens from natural and man-made hazards and assist in their recovery following catastrophic events.
- Restore and protect the Chesapeake Bay and its tributaries, Owls Creek, the North Landing River, and Back Bay.
- Expand public access to our waterways.
- Establish linkages with other environmental plans.
- Ensure that citizens are involved in protecting and maintaining quality environmental resources.
- Promote Virginia Beach as a model of environmental stewardship.
- Be a city that incorporates environmental resources and their enhancement thoroughly into our identity and our quality of everyday life.
- Environmental goals and policies set forth in this Comprehensive Plan should be implementable.

INTRODUCTION

Given its coastal location, our citizens and visitors value Virginia Beach foremost for its vast natural resources and open spaces. Our natural landscape consists of beaches and dunes, inland waterways fringed by tidal marshes and non-tidal wetlands, a vast tree canopy of maritime and inland forests, and farmland. Many of these natural systems are conservation lands, managed by federal, state, and local government as parks, wildlife refuges, natural areas, and wildlife management areas. Miles of shoreline and a multitude of water access points for recreational and commercial boating and fishing, hiking and biking, wildlife observation, and an array of water sports are enjoyed daily.

Along with this rich bounty of natural landscape comes the responsibility for active stewardship for both present and future generations to continue to enjoy, as well as for the many benefits afforded by land and waterway conservation and stewardship. They provide economic value through tourism and environmental value in and of themselves, which in turn creates a quality of life unparalleled in non-coastal communities.

New challenges face our city as evidenced by recent trends and longer-term projections. When asked what are the most important things that should be considered when updating this Comprehensive Plan, our citizens and business owners stated that, aside from transportation, it is environmental stewardship. More specifically, our citizens desire to protect and expand open spaces and recreational opportunities, and for local government to help address flooding, the effects of sea level rise, and stormwater management needs. The General Assembly passed legislation in 2011 requiring that all local comprehensive plans acknowledge the state's preference for "Living Shorelines" when designing erosion control measures. This is to include state guidance for comprehensive coastal resource management plans and best practices in the comprehensive plan. More recently in 2015, a new law was passed requiring local comprehensive plans to include adaptation and mitigation plans and strategies for addressing sea level rise and recurrent flooding.

To do the latter effectively, impacts on both the built and natural environment, including critical public and private, and green infrastructure, must be considered. In addition, it is necessary to understand and plan accordingly for the potential impacts of these hazards on our most vulnerable populations, including the elderly, disabled, low-income persons, and those without an individual means of transportation, in order to put forward the most equitable community resiliency strategies.

A defining character of Virginia Beach can be its environmental stewardship of our ecosystems. We can and should also strive to become a city that incorporates environmental resources and their enhancement thoroughly into our very identity and our quality of everyday life. This chapter presents the City's Environmental Stewardship Framework, which is an implementable way to achieve these desired characteristics for our future. This comprehensive framework and its underlying Guiding Principles were first put forward in the *2009 Comprehensive Plan*. Both the Framework and the Guiding Principles were validated by both our citizens and the Virginia Beach Planning Commission during the Comprehensive Plan review and update process; however, the Planning Commission felt that some enhancements were needed, and points needed to be emphasized in the Guiding Principles. Updated policy recommendations and recommendations for future action are presented, reflecting both current and projected needs through the year 2040.

Environmental Stewardship Framework

- Sustainability Plan
- Water Resources Protection and Management
- Parks and Conserved Lands
- Green Infrastructure
- Living Resources and Ecosystems Protection Management
  - Urban Forestry
  - Living Shorelines
  - Unique Plant and Animal Habitats
- Sea Level Rise, Recurrent Flooding, and Hazard Mitigation
- Land Development and Stormwater Management
- Energy Management and Alternative Energy Resources Development
- Solid Waste Management
- Noise, Light, and Air Pollution Management

A COMMUNITY PLAN FOR A SUSTAINABLE FUTURE

In 2008, the eighth Core Strategy-- "Ensure Sustainability"-- was added to the *City's Strategic Plan.* In June 2010, the American Institute of Architects (AIA) assembled the Sustainability Design Assessment Team (SDAT) at the request of the City to identify elements of our physical environment, community statistics, and City services that were supportive of or in conflict with the principles of "livability." Later that year, this initiative was acknowledged and reflected in the City Council's *2010 - 2014 Strategic Plan* (http://www.vbgov.com/government/departments/city-manager/Documents/2015-2017StrategicPlan.pdf) and the Environment and Sustainability Office (ESO) was established within the City's Department of Planning. The new ESO was immediately charged with developing a comprehensive sustainability plan for Virginia Beach that would reflect and blend both the perspectives of the City government and those of the community.

Through a series of community meetings, focus groups, and the input from a stakeholder team, *A Community Plan for a Sustainable Future*, commonly referred to as *the* "*Sustainability Plan,"* was adopted by City Council in March 2013, (http://www.vbgov.com/government/offices/eso/sustainability-plan/Pages/default.aspxadd).

The Sustainability Plan is organized around the three pillars of sustainability-- social, economic, and environmental-- and divided into a series of ten "Elements." Taken together, the Elements describe the totality of the facets that relate to the sustainability of the City of Virginia Beach – both its government and the community at large. Each Element is focused around a "Vision Statement," several "Goals" related to the "Vision Statement," and a series of "Objectives" that outline ways to achieve each "Goal."

In May 2014, a small group of City staff was assembled to continue the community's work on the Sustainability Plan, and to identify and use metrics to provide meaningful measurement of the goals of the Sustainability Plan and progress toward implementing *Envision Virginia Beach 2040.* A series of metrics was developed for each of the ten Elements and refined by an interdisciplinary team of City staff. In addition to identifying the metrics, the team also developed at least one, but in many cases, a series, of specific objective statements for each metric. These objective statements include specific targets for achievement by the community, which will allow progress to be tracked, reported, and analyzed. It is the ultimate goal that these metrics be adopted by City Council and incorporated into an interactive dashboard, allowing the community to view progress toward each metric, and the overall success of implementation of the City's Sustainability Plan over time.

WATER RESOURCES PROTECTION AND MANAGEMENT

Water is one of the most essential natural resources upon which modern life depends. Conserving and protecting it with the most efficient and sustainable practices is paramount to preventing shortages and ensuring a continuation of a high quality of life. The City seeks to preserve, enhance, and restore water quality in all of its waterways for the protection of the environment and to experience efficient use benefits for the present and future generations.

The City's goal is to bring partners in both city government and the community together to help improve our most valuable natural and man-made resources by protecting public health and safety, minimizing the impacts of stormwater runoff, controlling invasive plant and animal species, and creating and protecting sustainable habitats. The City is slowly but steadily making progress in reaching its goals of cleaner and healthier waterways. There has been ongoing and focused community outreach, new state and federal mandates for onsite stormwater management, shoreline protection and restoration, increased planting buffers, and open space protection and conservation. All of these efforts have contributed to steady water quality improvements within the City's primary and secondary watersheds, and in surface and groundwater resources management.

Water quality monitoring is a critical element of any program designed to manage and protect drinking water supplies. The Commonwealth's ongoing water quality monitoring program evaluates the physical, chemical, and biological character of water in relation to human health, ecological conditions, and designated water uses. These water quality monitoring programs include the sampling of streams, lakes, reservoirs, and groundwater resources that serve as primary sources for drinking water and are also extended to wetlands and surface runoff. Without accurate and current data on the state of the water resources, effective conservation and

remediation programs cannot be accomplished, nor can the effectiveness of the monitoring programs be evaluated.

Surface Water

One of the City's most valuable natural resources is undoubtedly its surface water resources. The geography of the City comprises three primary watersheds and seven secondary watershed areas (*see Watershed Areas Map in the "Environment" chapter of the Technical Report*). The core components that make up the watersheds that require protection and management consist of wetlands, shorelines, riparian buffers, storm drainage systems, and the land upon which they drain. Collectively, these components determine the overall environmental health, quality, and sustainability of all of the City's natural resources.

Recommended Policies: Surface Water

- Continue to ensure and improve water quality by developing and implementing initiatives to protect our water resources.
- Maintain the Atlantic Ocean and Chesapeake Bay water quality for water contact recreation.
- Demonstrate that provisions of the Clean Water Act are addressed as they apply to achieving total maximum daily load (TMDL) requirements through the City's annual MS4 report.
- Ensure that the goals set forth by the Southern Rivers Area Management Program are met.

Agenda for Future Action Recommendations: Surface Water

- Implement regulatory requirements relating to stormwater management, including but not limited to meeting NPDES MS4 and Chesapeake Bay TMDL mandates.
- Promote partnerships with the non-governmental organizations to achieve the City's water quality improvement goals.
- Implement recommendations of the 2014 Chesapeake Bay Watershed Agreement.
- Develop design criteria that help achieve water quality objectives in conjunction with other SGA objectives, such as preserving open space and planning for sea level rise and recurrent flooding.
- Complete efforts that are currently underway to develop a Stormwater Master Planning Analysis and Inventory.

Groundwater

Groundwater is a vital and finite resource that must not be taken for granted. It is finite because it is dependent on the availability of groundwater recharge zones. The more impervious the ground surface becomes over time, the less the underlying shallow and deep water aquifer systems are able to recharge with groundwater.

The volume of seasonal water used by residents and businesses for lawn watering and other irrigation activities is important for City government to understand, because the primary source of this water is a fragile shallow aquifer that is the only fresh groundwater source available within the City. Residents in the Rural Area rely solely on this aquifer, not only for crop irrigation but also for indoor domestic uses such as drinking, bathing, and cooking. The groundwater close to the surface

is mostly fresh, whereas the groundwater found at depths of 200 feet and greater is mostly saline and generally too salty to drink or use for irrigation.

As of 2008, more than 20,000 private wells operating in the northern portion of the City tap fresh groundwater in the City's shallow aquifer system. Pumping from these many wells often causes groundwater levels to drop below sea level. When groundwater levels fall below sea level, salty sea water intrudes and mixes with fresh groundwater, which increases chloride concentrations in the water, potentially making it unusable. Many other sources found to cause groundwater pollution include drainage from crop lands, urban lawns, golf courses treated with fertilizers and pesticides, livestock, underground failing septic systems, underground storage tanks, unsound land disturbing practices, etc. It is imperative that an action plan be established to monitor all activities that may contribute to the degradation and depletion of the city's aquifers.

Recommended Policies: Groundwater

- All golf courses should maximize the use of recycled water for irrigation.
- Public water and sewer extension plans should be coordinated with groundwater protection goals for all areas north of the Green Line where septic tanks and wells have exceeded their life cycle and are failing.

Agenda for Future Action Recommendations: Groundwater

- Develop a targeted educational program that increases public awareness about the importance of protection and conservation of non-potable groundwater resources and their use.
- Establish protocols to conserve and protect groundwater on city properties:
    - Develop an integrated pest management (IPM) and nutrient management plan.
    - Complete an underground storage tank (UST) remediation on all City sites.

Plans and Programs References:

- EPA Chesapeake Bay TMDL Program (Mid-Atlantic States) http://www2.epa.gov/chesapeake-bay-tmdl
- Virginia Beach Watersheds and Drainage Studies
- Virginia Stormwater Management Program (VSMP) http://www.deq.virginia.gov/Programs/Water/StormwaterManagement.aspx
- Virginia DEQ Municipal Separate Storm Sewer System (MS4) Permits http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/VSMPPermits/MS4Permits.aspx
- Virginia Erosion and Sediment Control Program http://www.deq.virginia.gov/Programs/Water/StormwaterManagement/ErosionandSedimentControl.aspx
- Virginia Wetlands and Stream Protection Program http://www.deq.virginia.gov/Programs/Water/WetlandsStreams.aspx
- Virginia DEQ Coastal Zone Management Program http://www.deq.state.va.us/programs/coastalzonemanagement.aspx

PARKS AND CONSERVED LANDS

Virginia Beach has a large network of parks and conserved lands that contain abundant natural resources. The City's inventory of parkland totals over 7,000 acres, with thousands more acres of parks and conservation lands owned by federal, state, and non-profit groups within the city limits. This network of green and blue spaces is vital to our way of life and our heritage. The importance of the ecosystem benefits provided by these areas is being documented through emerging research in the areas of climate change, sea level rise, recurrent flooding, urban health, air purification, carbon storage, agricultural production, and pollination. It is now widely recognized that ecosystems – including urban ecosystems such as parks, protected areas, and waterways – provide essential services for people.

Open space, park lands, and waterways are integral to the City's character and unique identity within the region. Early development of the region was shaped primarily by waterways used for transportation. Today, these same waterways are important for different reasons. They are the thread that ties neighborhoods together. They provide drinking water, recreation, flood control and wildlife corridors. Virginia Beach's waterways are the backbone of the natural resource system within the City. Conservation of remaining natural resource areas was identified by our citizens during public input sessions as one of the top priorities for updating this Comprehensive Plan.

Local waterways should be protected with natural and/or restored buffer areas, large and small open spaces, park lands and low impact development that work together to form continuous corridors known as greenways. Virginia Beach should acquire, manage, and protect lands for public use in a strategic manner to develop an interconnected system of green spaces that provides public access, conserves natural ecosystem functions, sustains clean air and water and provides places for flood control, recreation and civic engagement.

The "2011 Virginia Outdoors Demand Survey (VODS)," administered by the Virginia Department of Conservation and Recreation, finds high regard for the importance of outdoor recreation opportunities and a strong commitment to the protection of natural areas among the general public. Public support is very strong for public access to open spaces and outdoor recreational opportunities, as well as for public expenditures to make those opportunities available.

Tourism is a major industry in Virginia Beach and the Hampton Roads region. In recent years, Virginia Beach has successfully increased the number of outdoor recreation events to include walks/running races and sports tournaments in collaboration with the private sector. Bikeway and trail connectivity continues to be the top recreational need identified by citizens. Significant progress has been made over the last five years to improve the trail network.

New park spaces will be needed within Strategic Growth Areas to serve increasing population density within a walkable environment. There is also a growing interest in partnerships with conservation agencies and citizen groups to improve public access to conservation lands and parks within the North Landing River watershed.

Recommended Policies: Parks and Conserved Lands

- Continue partnerships with tourism industry and private recreation providers to create additional outdoor recreational activities and amenities that will increase economic activity, especially in the resort shoulder seasons.

Agenda for Future Action Recommendations: Parks and Conserved Lands

- Acquire open space in strategic locations, including in the SGAs, that can provide multiple benefits in terms of flood control, water quality, public access to waterways, preserving or creating tree canopy, and preserving unique ecological and cultural heritage sites.
- Commit resources to maintain the high quality of the existing park system and to expand the trail system.
- Implement the recommendations in the Virginia Beach Bikeways and Trails Plan.
- Implement the recommendations in the Virginia Beach Outdoors Plan.

Plans References:

- *Virginia Beach Outdoors Plan* http://www.vbgov.com/government/departments/parks-recreation/design-development-projects/Pages/outdoors-plan.aspx
- *Virginia Beach Bikeways and Trails Plan Urban Forestry Management Plan* http://www.vbgov.com/government/departments/parks-recreation/landscape-management/Pages/urban-forestry.aspx
- *Green Sea Blueway and Greenway Management Plan* http://www.vbgov.com/government/offices/eso/north-landing-river-study/Pages/default.aspx

GREEN INFRASTRUCTURE

Understanding the benefits that are inherent within our natural ecosystems is the first step to being able to integrate those concepts into more sustainable land use planning. "Green Infrastructure" refers to strategically planned and managed networks of natural lands, working landscapes, and other open spaces that conserve ecosystem values and functions and provide associated benefits to human populations. It can refer to natural ecosystems or man-made stormwater and landscape features that are designed and constructed to mirror natural ecosystem functions. Green Infrastructure can help meet State requirements for the treatment and storage of rain water runoff, which emphasize the use of drainage systems that incorporate natural processes.

Bow Creek and Stumpy Lake are examples of green infrastructure. As part of the Bow Creek Recreation Center and Golf Course renovation project, portions of Bow Creek that had been channelized over time were restored to their natural characteristics. Stumpy Lake serves as a drinking water supply reservoir for the City of Norfolk. As the headwaters of Gum Swamp, located in the South Princess Anne Commons Area, it also provides stormwater management for the watershed. By preserving this natural resource area as part of the City's green infrastructure system, multiple benefits are derived including flood control, wildlife habitat and movement corridors, migratory

waterfowl nesting, and provision of a continuous greenway from Stumpy Lake to the North Landing River.

Bow Creek Recreation Center and Golf Course – before renovation

Bow Creek Recreation Center and Golf Course – after renovation with green infrastructure design.

Bow Creek Recreation Center and stormwater management pond designed as green infrastructure integrated with the renovated golf course.

The *Virginia Beach Outdoors Plan* (http://www.vbgov.com/government/departments/parks-recreation/design-development-projects/pages/outdoors-plan.aspx) and the *Virginia Beach Bikeways and Trails Plan* (http://www.vbgov.com/government/departments/parks-recreation/design-development-projects/pages/bikeways-trails-plan.aspx) are the primary tools for implementation of our green infrastructure system. These plans identify opportunities for property acquisition and development, conservation easements, as well as specific projects for construction. The Department of Parks and Recreation receives funding in the Capital Improvement Program (CIP) on an annual basis to support open space acquisition, development and management. It is important for this annual funding to continue in order to adequately plan for and secure future green spaces for use as green infrastructure. The three key green infrastructure projects discussed in the *Outdoors Plan* include:

- **Stumpy Lake/North Landing River Greenway**

  This greenway corridor begins at Stumpy Lake and follows Indian River Road to the North Landing River and Back Bay. There are opportunities to connect this greenway with Chesapeake and North Carolina trail systems as well as a larger regional trail system known as the East Coast Greenway. The East Coast Greenway is planned as a long-distance family friendly bike trail from Maine to Florida. Properties in this corridor are being acquired through the Open Space Acquisition program, the AICUZ program for the Interfacility Traffic Area, and the Agricultural Reserve Program. This area is also addressed in the *Green Sea Blueway and Greenway Management Plan*.

- **Thalia Creek Greenway**

  Located just south of Town Center in Pembroke, Thalia Creek Greenway is an example of an urban greenway system that goes beyond the rivers and parklands. Urban greenways provide transportation links, strengthen community identity, and are a way of bringing together unrelated developments. As other areas of the City begin to experience increased density, it is recommended that greenway and open space systems be integrated into all Strategic Growth Area plans. For more information on the *Thalia Creek Greenway Master Plan*, see: http://www.vbgov.com/government/departments/parks-recreation/design-development-projects/Documents/thalia-creek/thalia-creek-greenway-master-plan.pdf

- **West Neck Creek Greenway and West Neck Creek Natural Area Park**

  The West Neck Creek Natural Area is the center for this greenway corridor. To the north, there are opportunities to connect large residential areas along Holland Road to this greenway. To the south, this greenway could merge with the Stumpy Lake/North Landing River greenway.

Designing greenway systems that include recreational opportunities will help local citizens understand the benefits of clean water and the value of healthy waterways. These interconnected greenway systems can be described as green infrastructure. However, merely designating greenway corridors is not enough. Expanding and creating new trail networks that link greenways and allow seamless movement of users through the City's greenways and natural areas will also facilitate sustainable use of these areas. Trail networks provide alternate transportation routes and

recreation areas for City residents, and they can help preserve greenways for wildlife. Diligently undertaking the upkeep and maintenance of trail networks within the City's green spaces will ensure that water resources, sensitive habitats, and wildlife are protected, valued, and minimally impacted by users.

Green Infrastructure that is part of a larger greenway plan can also be used to help preserve land within the floodplain, allowing the City to minimize the impacts of flooding and adapt to sea level rise. The City has acquired numerous properties within the Princess Anne Commons and Interfacility Traffic Area (ITA) that contain floodplains and environmentally sensitive areas. These areas should be examined to identify their potential to be incorporated into a larger greenway network.

Recommended Policies: Green Infrastructure

- Incorporate green infrastructure elements into new commercial and residential developments.

Agenda for Future Action Recommendations: Green Infrastructure

- City properties within the Princess Anne Commons and Interfacility Traffic Area should be studied to identify conservation lands and green infrastructure opportunities that can complement the plans for future economic development projects.

LIVING RESOURCES AND ECOSYSTEMS PROTECTION MANAGEMENT

Urban Forestry

Virginia Beach's urban forest touches the lives of its citizens every day. It consists of all trees in the City on both public and private lands. The City's trees are cherished by residents for promoting strong neighborhoods and a good quality of life. The urban forest provides numerous benefits to the City and its residents, including cleaner air and water, cooler temperatures, and energy savings. With proper management, these benefits increase every year as trees continue to grow and thrive. Virginia Beach's urban forest is a vital component of the City's infrastructure.

Urban forestry consists of practices that the City employs to maximize the social, aesthetic and functional values of its forest resources. Through these practices, the City is able to accomplish a broad array of multiple benefits and functions at lower cost than man-made infrastructure would allow. Urban forestry practices can help offset adverse effects of heat islands and urban runoff, provide shade for people, and provide habitat for wildlife.

The City's *Urban Forest Management Plan* (https://www.vbgov.com/government/departments/parks-recreation/parks-trails/caring-for-our-parks/Documents/2013-ufmp.pdf) provides policy guidance, goals and objectives for urban forest management in Virginia Beach. The plan delivers a vision of a strong urban forest that thrives through mutually beneficial partnerships and effective resource commitment. Its overarching mission is to enhance the Virginia Beach urban forest through education, community involvement, proactive management, and responsible stewardship.

Recommended Policies: Urban Forestry

- Increase tree plantings and preservation of existing trees on all public properties.
- Undisturbed natural areas and important natural features should be identified during the site development design process. Begin by identifying existing natural characteristics of the site that should be preserved. Natural site amenities may consist of a significant stand of trees. Within reason, existing tree and groundcover that are healthy should be preserved and integrated into the overall design of development.

Agenda for Future Action Recommendations: Urban Forestry

- Implement the recommendations in the *Urban Forest Management Plan*.
- Improve the viability and resilience of the City's urban forest by initiating the three-trophic layer (canopy trees, understory trees, shrub and groundcover) approach.
- Improve inspections and enforcement capabilities to better achieve the objectives of local landscaping and tree protection ordinance requirements.
- Enhance policies that guide development requirements for landscape practices on proposed projects.

Living Shorelines

Coastal ecosystems reside at the interface between the land and water and are naturally very complex. They perform a vast array of functions by way of shoreline stabilization, improved water quality, and habitat for fishes; from which humans derive direct and indirect benefits.

The science behind coastal ecosystem resource management has revealed that traditional resource management practices limit the ability of the coastal ecosystem to perform many of these essential functions. The loss of these services has already been noted throughout coastal communities in Virginia as a result of development in coastal zone areas coupled with common erosion control practices. Beaches and dunes are diminishing due to a reduction in a natural sediment supply. Wetlands are drowning in place as sea level rises and barriers to inland migration have been created by construction of bulkheads and revetments. There is great concern on the part of the Commonwealth that the continued armoring of shorelines and construction within the coastal area will threaten the long-term sustainability of coastal ecosystems under current and projected sea level rise.

In the 1980s, interest arose in the use of planted wetlands to provide natural shoreline erosion control. Today, a full spectrum of living shoreline design options is available to address the various energy settings and erosion problems found. Depending on the site characteristics, they range from marsh plantings to the use of rock sills in combination with beach nourishment.

Research continues to support that these approaches combat shoreline erosion, minimize impacts to the natural coastal ecosystem and reinforce the principle that an integrated approach for managing tidal shorelines enhances the probability that the resources will be sustained. Therefore, adoption of new guidance and shoreline best management practices for coastal communities is now

necessary to ensure that functions performed by coastal ecosystems will be preserved and the benefits derived by humans from coastal ecosystems will be maintained into the future.

In 2011, the Virginia Assembly passed legislation to amend §28.2-1100 and §28.2-104.1 of the *Code of Virginia* and added section §15.2-2223.2, to codify a new directive for shoreline management in Tidewater Virginia. In accordance with section §15.2-2223.2, all local governments shall include in the next revision of their comprehensive plan beginning in 2013, guidance prepared by the Virginia Institute of Marine Science (VIMS) regarding coastal resource management and, more specifically, guidance for the appropriate selection of living shoreline management practices. The legislation establishes the policy that living shorelines are the preferred alternative for stabilizing eroding shorelines.

This guidance, known as Comprehensive Coastal Resource Management Guidance, has been prepared by VIMS for localities within the Tidewater region of Virginia and shared through their Comprehensive Coastal Resources Management Portal (CCRMP) (http://www.ccrm.vims.edu/ccrmp/). It explicitly outlines where and what new shoreline best management practices should be considered where coastal modifications are necessary to reduce shoreline erosion and protect our fragile coastal ecosystems. This guidance includes a full spectrum of appropriate management options that can be used by local governments for site-specific application and consideration of cumulative shoreline impacts. The guidance applies a decision-tree method using a resource mapping database that will be updated periodically, and a digital geographic information system model created by VIMS.

Recommended Policies: Living Shorelines

- Refer to the guidance presented in the City of Virginia Beach Comprehensive Coastal Resource Management Portal (CCRMP) prepared by VIMS to guide regulation and policy decisions regarding shoreline erosion control: http://ccrm.vims.edu/ccrmp/va_beach/.
- The above-referenced Shoreline Best Management Practices should become the recommended adaptation strategy for erosion control. Departure from these recommendations by an applicant wishing to alter the shoreline should be justified at a hearing of the board(s).
- Use the VIMS Decision Trees for onsite review and subsequent selection of appropriate erosion control/shoreline best management practices: http://ccrm.vims.edu/decisiontree/index.html.
- Use the VIMS CCRMP Shoreline Best Management Practices for management recommendations for all tidal shorelines found at: http://ccrm.vims.edu/ccrmp/va_beach/
- Available open spaces adjacent to marsh lands should be preserved to allow for inland retreat of marshes as a result of rising sea levels.

Agenda for Future Action Recommendations: Living Shorelines

- Train regulatory boards (Wetlands and CBPA) on decision making tools developed by the Center for Coastal Resources Management at VIMS.
- Follow the development of the state-wide General Permits being developed by the Virginia Marine Resources Commission (VMRC). Ensure that local policies are consistent with the provisions of the permits.
- Educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.

- Evaluate and develop a locality-wide regulatory structure that encourages a more integrated approach to shoreline management.
- Evaluate and recommend cost share opportunities for construction of living shorelines.

Unique Plant and Animal Habitats

Virginia Beach is uniquely located geographically such that it affords the most biological diversity found in the state east of the Blue Ridge Mountains. Its position between the mouth of the Chesapeake Bay and the Albemarle-Pamlico Sounds makes the City the northernmost home to many southern plant and animal species, and the southernmost home to many northern plant and animal species.

Abundant waterways and wetlands provide diversity of habitat for many songbirds, shorebirds, wading birds, raptors and waterfowl. A wide variety of freshwater, brackish and salt water fish and shellfish species are also present. Additionally, several endangered and threatened species, including loggerhead sea turtles and bald eagles, call Virginia Beach home.

Virginia Beach is fortunate to possess these plentiful aquatic resources, which hold value for the City in seafood harvests, recreation, and aesthetics. Protecting sensitive spawning and nursery habitats will help ensure that the City's natural resource based industries continue to thrive. Local fisheries and shellfish harvesting should be of special concern. As noted in the Virginia Department of Environmental Quality's *Water Quality Assessment Report*, fishing is impaired in half of the City's secondary watershed areas. Shellfish harvesting is assessed less broadly within Virginia Beach's network of water quality monitoring stations, but it is impaired in at least three of the eight secondary watersheds. Virginia Beach should support a well-coordinated effort between federal and state regulators and private stakeholders to prevent any further harm to its fisheries, and to remedy problems that have led to the decline of its fisheries. The location and health of sensitive spawning and nursery habitats within proposed development areas should be addressed in the development review process.

Recommended Policies: Unique Plant and Animal Habitats

- Protect and restore unique plant and animal habitats to sustain Virginia Beach's high biological diversity in the Southern Rivers area.
- Protect the diversity of habitats through a variety of conservation tools. Use the recommendations cited in the adopted Natural Heritage Report, 1994 when considering developments that may affect designated wildlife protection areas.
- Promote continued coordination between the Hampton Roads Planning District Commission (HRPDC), The Nature Conservancy, and the Virginia Department of Conservation and Recreation/Division of Natural Heritage (VDCR/DNH) of their respective work programs for sharing inventory data bases.
- Use existing maps and other resources that show the important fish spawning and nursery locations to limit impacts of future development. Reference these locations on development plans.
- Reference Natural Heritage Areas on development plan applications and review during the development review process.
- Continue to partner with Wildlife Response, Inc. to treat and care for injured wildlife.

Agenda for Future Action Recommendations: Unique Plant and Animal Habitats

- Develop and implement policies and programs that protect, restore and enhance critical habitats along the City's waterways.
- Restore and attain sustainable inventories of native edible oysters in the Lynnhaven River.
- Restore oyster reefs in the Lynnhaven and Owls Creek estuaries by developing a hatchery plan and constructing sanctuary reefs.
- Work with Virginia Institute of Marine Science (VIMS) and other partners to restore Submerged Aquatic Vegetation (SAV) through planting and habitat enforcement efforts.
- Undertake one wetlands restoration project in the Elizabeth River Watershed the Lynnhaven River Watershed, Back Bay Watershed, North Landing River Watershed, and Rudee Inlet/Owls Creek Watershed.
- Develop a City program to effectively manage invasive plants and animals.

SEA LEVEL RISE, RECURRENT FLOODING, AND HAZARD MITIGATION

Sea Level Rise and Recurrent Flooding

Sea level rise is a major concern for Coastal Virginia and particularly for the Hampton Roads region, which is listed as the largest population center in the country at greatest risk from sea level rise outside of New Orleans. The region has been experiencing increased nuisance flooding, defined by the National Oceanic and Atmospheric Administration (NOAA) as a daily rise in water level above the minor flooding threshold set locally by NOAA's National Weather Service. In 2014, the Sewells Point Tide Station recorded eight days of nuisance flooding. The number of nuisance flooding events is expected to increase as sea levels rise. Since the City's *2009 Comprehensive Plan* was adopted, action has been taken at the national, state, regional, and local levels to plan and prepare for sea level rise and recurrent flooding.

Regional Planning Efforts

Between 2010 and 2012 the Hampton Roads Planning District Commission (HRPDC) released a series of reports focusing on the impacts of climate change on the region. The first report researched potential impacts and engaged local government staff. The second report analyzed the impacts of storm surge flooding on various sectors, such as the built environment and the economy, and public engagement. The third report analyzed the potential impacts of sea level rise on the region's population, built environment, infrastructure, economy, and natural environment. In addition, the HRPDC established a Sea Level Rise Advisory Committee in 2014 comprised of representatives of all HRPDC localities. They also organized a "Dutch Dialogue" in June 2015 to bring together local and Dutch experts to develop strategies for integrated water management and resiliency for two neighborhoods in Hampton Roads, with intended transferability for all Hampton Roads Communities.

In June 2014, the Hampton Roads region was selected to participate in a pilot project with the aim of developing a "whole of government" (federal, state, local) and "whole of community" approach to sea level rise preparedness and resilience planning that can be used as a template for other regions while also furthering a collaborative and efficient approach to resilience planning regionally.

Given its coastal location and being the largest city population-wise in Virginia, Virginia Beach has necessarily been an active participant in the current regional planning efforts. Moving forward,

Virginia Beach should remain involved in regional planning efforts and participate in new efforts as opportunities arise.

State Planning Efforts

In 2012, the General Assembly passed Senate Joint Resolution No. 76 directing the Virginia Institute of Marine Science (VIMS) to study adaptation strategies to address recurrent coastal flooding in Tidewater and the Eastern Shore of Virginia. Their report was released in 2013 and presented a series of local potential sea level rise scenarios, in addition to evaluating and recommending adaptation options for local governments (*see* *http://ccrm.vims.edu/recurrent_flooding/Recurrent_Flooding_Study_web.pdf*).

The Secure Commonwealth Panel established a Recurrent Flooding Sub-Panel in fall 2014 that provided recommendations for how the Commonwealth can respond and adapt to recurrent flooding and sea level rise. Additionally, Governor McAuliffe re-established the Climate Change Commission to review, update, and prioritize the recommendations of the *2008 Climate Change Action Plan*, as well as identify sources of revenue to fund implementation of the plan's recommendations *(see* *http://www.sealevelrisevirginia.net/docs/homepage/CCC_Final_Report-Final_12152008.pdf*).

The Climate Change Commission has appointed the state's first Chief Resilience officer to lead the effort to prepare Virginia for the current and future effects of climate change.

Local Planning Efforts

As a coastal community, Virginia Beach is proactive in addressing sea level rise. Our oceanfront has been protected from rising sea levels and coastal storms through two major civil works projects: one at the Resort area and the other at Sandbridge. In addition, Chesapeake Bay Beach, Cape Henry Beach, and Ocean Park Beach are replenished approximately every six years as part of the Lynnhaven Inlet maintenance dredging performed by the U.S. Army Corps of Engineers (USACE).

In 2013, Virginia Beach updated its floodplain ordinance and moved it to Appendix K of the City Code as a standalone ordinance. One of the major steps taken during the update was to adopt two feet of freeboard for all new construction and substantial improvements to existing construction. In addition, the City has participated in several rounds of Federal Emergency Management Agency (FEMA) grant funding to elevate homes with multiple flood losses. To date, seven homes have been elevated, and another thirteen have received funding for elevation.

To ensure protection of critical public infrastructure, the Department of Public Utilities has inventoried all sewer pump stations subject to flooding and is evaluating infiltration and inflow from 2, 5 and 10-year storm events. Sea level rise is a contributing factor for some of these stations and collection systems. Aging infrastructure and Virginia Department of Environmental Quality Consent Order mandates have also led to elevating some of our infrastructure or reinforcing it such that it would be resistant to infiltration and inflow from sea level rise and recurrent flooding. As the City replaces sewer pump stations, adds generators, and rebuilds collection systems, groundwater level and flooding are being considered in their design and construction.

In 2014, City Council launched the Comprehensive Sea Level Rise and Recurrent Flooding Capital Improvement Program project which is now known as Sea Level Wise to enable Virginia Beach to establish long-term resilience to sea level rise and associated recurrent flooding. The first phase of Sea Level Wise focused on establishing a full understanding of flood risks by analyzing sea level rise and recurrent flooding impacts to both built infrastructure and the natural environment. Phase tow concentrated on developing and evaluating options for addressing short-term and long-term flood

risks. During Phase three, a comprehensive planning process brought together all the distinct Sea Level Wise components to form an integrated Adaptation Strategy to guide adaption efforts across the entire City, as well as actionable adaptation projects for each of the City's four major watersheds. The final phase involves implementing the projects identified throughout this effort.

As part of developing the adaptation study, the City has identified sea level rise planning horizons in order to complete the vulnerability assessment and develop adaptation strategies. Two scenarios were selected for short- and long-term planning purposes, using the NOAA, USACE, and VIMS projection scenarios:

- 1.5-foot of projected rise for the short term planning horizon.

- 3 feet of projected rise for the long-term planning horizon (50+ years) to be used as a basis for making long-term decisions, such as public infrastructure (roadways, bridges, alternative transportation modes, public utilities, and stormwater drainage system) design and replacement.

In addition to planning for sea level rise, several neighborhoods have been impacted by flooding from storm and rainfall events. The City is undertaking a drainage study to develop solutions to address flooding in these neighborhoods and protect them from future events. The City is also exploring the benefits of participating in FEMA's Community Rating System (CRS) Program, which could provide discounts on federal flood insurance premiums paid by property owners.

In Virginia Beach, living near the water remains desirable. Projected patterns for future development should be evaluated and considered to determine the vulnerability to flooding over time. Sea level rise must be particularly considered in areas with relatively flat topography, such as the Southern Rivers Watersheds Area, as small changes in sea level can adversely impact greater land areas. Care should be taken when locating and building homes and other structures, as well as new development and residential subdivisions, to ensure that they are adequately protected from flooding now and into the future.

Hazard Mitigation

Environmental hazards are very real to our coastal area. The City must focus on long-term sustainability by identifying short and long term impacts associated with natural events. The *2011 Southside Regional Hazard Mitigation Plan* (http://www.hrpdcva.gov/uploads/docs/2011%20Southside%20HR%20Hazard%20Mitigation%20Plan.pdf) recommends specific actions designed to protect residents, business owners and the built environment from hazards that pose the greatest risk. A comprehensive mitigation approach addresses hazard vulnerabilities that exist today and in the foreseeable future. Therefore, projected patterns of future development must be evaluated and considered in terms of how that growth will increase or decrease a community's hazard vulnerability over time.

Land use is a particularly important theme in Southside Hampton Roads, where many communities are facing increasing growth rates. Local policies that guide community growth and development, incentives tied to natural resource protection, and public awareness and outreach activities should be considered to reduce participating jurisdiction's future vulnerability to identified hazards.

The *Southside Regional Hazard Mitigation Plan* is currently in the process of being updated and rewritten into a *Regional Hazard Mitigation Plan*, with expected adoption in late 2016. Care should

be taken to ensure consistency between the Comprehensive Plan and the *Regional Hazard Mitigation Plan*, especially related to strategies to mitigate recurrent flooding and sea level rise.

Recommended Policies: Sea Level Rise, Recurrent Flooding, and Hazard Mitigation

- Concentrate new development at higher elevations outside special flood hazard areas.
- Use alternative construction techniques to minimize fill in the Floodplain Subject to Special Restrictions.
- Wherever possible in the development approval process, avoid developing inside special flood hazard areas, especially in the Southern Watershed Area, which is characterized by limited relief and a minimal hydraulic gradient.

Agenda for Future Action Recommendations: Sea Level Rise, Recurrent Flooding, and Hazard Mitigation

- Develop a program to educate the public on the beneficial functions and values of floodplains.
- Implement the findings and recommendations of the Sea Level Wise Response Strategy.
- Preserve and enhance beaches and dunes along the City's Atlantic Ocean and Chesapeake Bay shorelines.
- Implement the recommendations of the *Regional Hazard Mitigation Plan*.

LAND DEVELOPMENT AND STORMWATER MANAGEMENT

Land is a precious resource, limited in amount, highly valued and often exploited, a commodity that is constantly being sold, developed, or redeveloped. As the City matures, its land inventory becomes even scarcer. Management of land in its natural state demands that we employ wise management and stewardship practices to safeguard the City's natural heritage. Similarly, developed land should be used in a sustainable manner so that its value to present and future generations is maintained or enhanced. Integrated Site Design and stormwater management are key techniques that can be used to enable responsible and more sustainable land development practices.

"Filterra" stormwater treatment system draining a parking lot at new suburban development site

The City has recently drafted an *Integrated Site Design Guide* as the latest in a series of initiatives intended to help developers accomplish sustainable development in the city. While this effort is designed to update the City's current *Landscaping Guide*, which was published in 2002 and revised in 2009, it is not an attempt to increase current landscape requirements or costs related to landscaping and stormwater management. The Guide seeks to maintain the beneficial landscaping strategies that have been successful in beautifying Virginia Beach over the last 20 years. The Guide will be the tool box from which landscape architects and designers, civil engineers, planners, developers, business owners, and even homeowners will combine landscape techniques with design components to meet the City site plan review requirements. The draft plan can be viewed at: *http://www.vbgov.com/government/offices/eso/Documents/isdg-2014.pdf*.

Stormwater management regulations were passed by the General Assembly after many years of assembling diverse stakeholder input. This landmark decision has more recently devolved from state agency to local government implementation and enforcement without additional resources to local governments. As a result, the City of Virginia Beach adopted new stormwater management regulations and fees, which became effective July 1, 2014. Perhaps more than anything else in recent years, these state-mandated regulations have changed the way development projects are designed and approved in Virginia Beach. In addition, since adoption of the *2009 Comprehensive Plan*, the City of Virginia Beach prepared a *Comprehensive Stormwater Management Plan* that was approved by the Department of Environmental Quality.

Southern Watershed Subject to "Special Drainage Considerations"

In addition, the Southern Watershed (see Southern Watershed map in Chapter 1, Section 1.5 – Rural Area) is subject to "special drainage considerations." Drainage in the Southern Watershed is highly impacted by the presence of high ground water, poorly draining soils, and high water surface elevations in downstream receiving waters. Therefore, it is recommended that the developer of any property in the Southern Watersheds understand and evaluate these factors prior to undertaking the project and properly account for these factors in the project design. Receiving waters in the Southern Watersheds are subject to wind driven tidal influences. High ground water elevations and poorly draining soils can result in increased runoff, can limit the capacity of stormwater conveyance systems, and can counter the use of certain Best Management Practices, such as infiltration.

All of these effects must be fully considered and evaluated in the analysis and design of drainage systems in the Southern Watersheds. Accordingly, it is strongly recommended that the developer has a preliminary drainage study prepared by a qualified professional engineer in advance of any request to approve a discretionary (versus by-right) development application that involves land disturbance in the Southern Watershed. The drainage study should fully and accurately evaluate the effects of the foregoing factors on the planned development and on upstream and downstream areas. The proposed drainage system for the planned development would provide positive drainage that meets City standards and does not result in flooding within the planned development or to upstream or downstream areas.

Recommended Policies: Land Development and Stormwater Management

- "Low Impact Development" design features should be incorporated into the City's major buildings and parking area projects and in all private development plans.
- All waterfront development proposals in the Strategic Growth Areas (SGAs) should be coordinated with the City's Parks and Recreation Department for potential public water access (e.g., canoe/kayak put in, parkland, plaza, etc.,) in accordance with adopted SGA Master Plans.

Agenda for Future Action Recommendations: Land Development and Stormwater Management

- Complete and adopt the Integrated Site Design Guide as a component of Planning's Design Specifications and Standards.

- Enhance stormwater management by exploring alternatives to conventional stormwater management facilities (SWMFs), such as Low Impact Development (LID) approaches that are applicable to the Coastal Plain.
- Work with regional partners to implement the *Green Sea Blueway and Greenway Management Plan.*
- Develop online tools to assist the public with identification of sensitive environmental areas in the development review process.

ENERGY MANAGEMENT AND ALTERNATIVE ENERGY RESOURCES DEVELOPMENT

The City's goal for the year 2040 or earlier for energy resources management is three-fold:

1. All public and private development employs design features that achieve higher levels of energy efficiency;
2. Use energy as efficiently and as effectively as possible, while investing and planning for the continuity of municipal operations during energy disruptions; and,
3. Reduce energy consumption City-wide by 10%, in support of the Commonwealth of Virginia's goal to reduce electric energy consumption by 10% below 2006 levels by 2020, as stated in the in the *2014 Virginia Energy Plan* (https://www.dmme.virginia.gov/DE/2014_VirginiaEnergyPlan2.shtml).

To accomplish this, the City of Virginia Beach became a partner of Virginia Energy Sense. Virginia Energy Sense is the Commonwealth's energy education program under the guidance of the State Corporation Commission. Their mission is to work toward the *2014 Virginia Energy Plan's* electric energy consumption reduction goal by helping Virginias understand their energy use, and what they can do to save energy easily and cost-effectively. Energy efficiency and energy conservation are the most affordable, available tools to achieve this goal. The Virginia Energy Sense program provides the tools to educate and empower all Virginians to get involved and lower the amount of electricity they use.

The City of Virginia Beach can only hold itself and its operations fully accountable for energy consumption and conservation. Making an impact throughout the community will take the entire community—government and its citizens and businesses—working together as partners toward a more sustainable future. This necessary partnership is articulated well in the City's *A Community Plan for a Sustainable Future* (http://www.vbgov.com/government/offices/eso/sustainability-plan/Pages/default.aspxadd).

Our public schools are a major part of the City's inventory of municipal buildings. As such, they are key partners in the pursuit of energy use management. Virginia Beach City Public Schools (VBCPS) has become an internationally-recognized leader for its sustainable design principles and a growing list of innovative LEED-certified buildings. In addition to LEED projects and the constant evaluation of sustainable practices throughout the school division, sustainability has been implemented throughout the curriculum. Sustainability is a vital component of the *Compass to 2020 - Strategic Plan for Student Success* (http://www.vbschools.com/compass/landing.asp), which is implemented by the VBCPS Board. VBCPS was recognized by the USGBC as the "Best Green School Division Nationwide" for 2012.

Virginia Beach has undertaken a variety of initiatives to increase energy efficiency in City buildings:

- The Joint Energy Committee was created in spring 2007 in response to the City's rising energy costs. It reviews current City energy practices, evaluates new technology for potential incorporation into the City's energy strategy, and sets energy consumption goals for municipal operations. The JEC includes representatives from both the City and VBCPS that have been identified to date as the largest energy consumers, as well as representatives from the City's Department of Management Services (Budget Office). The JEC is jointly chaired by City and VBCPS executive managers.

- The City's Energy Office was created in July 2010. Since its creation, the office has led the way on a number of initiatives, helping to monitor and reduce the City's energy consumption.

- In the 2008, the City of Virginia Beach adopted an administrative directive requiring, whenever technically and fiscally possible, all new City building projects that have over 10,000 square feet of conditioned space to be designed and constructed to achieve a LEED-certified rating. To date 8 buildings have achieved LEED certification and another 6 are being designed for certification.

- The City pursues ENERGY STAR benchmarking and certification on existing buildings; to date, 5 have received certification. Currently, VBCPS has 28 facilities (nearly 2.9 million square feet) that have earned ENERGY STAR certification. Twenty facilities were either certified or recertified in 2014.

Mayor's Energy Advisory Committee (MEAC)

The City of Virginia Beach recognizes that local leadership and commitment to energy efficiency are keys to having a large influence over energy use in our community. Nationally, the Virginia Beach Region is 20th overall and is ranked 1st among mid-size cities for number of buildings in the EPA's Energy Star program. Of the 81 Energy Star certified buildings in the region, 35 are buildings located in the City boundaries. With the goal of local leadership and commitment to energy efficiency, the Mayor's Energy Advisory Committee (MEAC) was formed in 2013 to proactively position Virginia Beach to be an active leader in the movement toward a more sustainable and intelligent energy future for our nation, the commonwealth and the community.

MEAC focused on five major areas:

- Updates on the offshore energy efforts and its timeline for decision makers.
- Development of energy conservation programs.
- Tracking energy legislation and policy development.
- Providing energy-related advisory and support activities.
- Advising on new opportunities and actions.

The Committee's recommendations were presented to City Council in 2015.

Alternative Energy Task Force

In 2009 Mayor William D. Sessoms, Jr. created the Mayor's Alternative Energy Task Force to position Virginia Beach as a leader in the movement toward a more sustainable and intelligent energy future. Members of the task force included representatives from local, state and federal government, universities and research institutions, and industry and citizen groups. The overarching mission of this task force was to develop goals, strategies, and objectives to reduce Virginia Beach's reliance on foreign sources of energy and to ensure adequate future sources of energy to meet domestic needs. The results of this work are captured in the *Alternative Energy Task Force Report* dated September 7, 2010 http://www.hrp.org/Site/docs/ResourceLibrary/VB_AETFFinalReport_07Sep10.pdf.

Recommended Policies: Energy Resources Management

- Build Leadership in Energy and Environmental Design (LEED™) structures or their equivalent for all public buildings.
- Retrofit City buildings to save energy using Energy Star standards.
- Increase our urban forest canopy to absorb more carbon dioxide (CO2).
- Use energy efficient lighting and reduce wasteful electricity use.

Agenda for Future Action Recommendations: Energy Resources Management

- Prepare action and public communications plans to support the Commonwealth's goal to reduce electric energy consumption by 10% below 2006 levels by 2020.
- Implement City's commitment to the US Mayors' "Climate Protection Agreement." http://www.usmayors.org/climateprotection/agreement.htm

Recommended Policies: Alternative Energy Resources Development

- Support research and development of alternative energy sources and encourage their use.
- Link energy resource development and management opportunities to the City's economic development strategy and the region's long-term economic development goals.

Agenda for Future Action Recommendations: Alternative Energy Resources Development

- Encourage research and development of alternative energy sources and promote their use.
- Work with the Virginia Coastal Energy Research Consortium (VCERC) on-offshore wind development.

NOISE, LIGHT, AND AIR POLLUTION MANAGEMENT

Noise Pollution

Noise pollution is unwanted or disruptive sound that interferes with normal activities such as sleeping or conversation or disrupts or diminishes one's quality of life. Many Virginia Beach citizens are affected by noise created by surface transportation, aircraft and stationary sources. The need to minimize these impacts must be balanced against other required planning objectives as cited in state law. This point is especially true as it applies to the City's Air Installation Compatible Use Zone (AICUZ) program and the recommendations cited in the 2005 Hampton Roads Joint Land Use Study.

Recommended Policies: Noise Pollution

- Adhere to Air Installation Compatibility Use Zones (AICUZ) and other policy and programmatic recommendations cited in the Oceana Land Use Conformity Program (http://www.yesoceana.com/about-oceana-land-use-conformity/) and the 2005 Hampton Roads Joint Land Use Study (http://www.vbgov.com/government/departments/planning/areaplans/Documents/Oceana/JointLandUseStudy.pdf) both adopted by City Council.
- Relocate existing and locate proposed higher noise generating businesses and activities to locations inside the City's higher AICUZ zones and away from residential areas.

Agenda for Future Action Recommendations: Noise Pollution

- Explore alternative means of noise attenuation along roadways and at intersections where noise attenuation is not mandated through the use of wider shoulders and increased vegetation.

Light Pollution

Light pollution is the inappropriate or excessive use of artificial light and can cause sky glow, glare, light trespass, decreased visibility at night, and energy waste. Much of the outdoor lighting used at night is inefficient, overly bright, poorly targeted and improperly shielded. The Dark Skies Initiative seeks to raise awareness of light pollution and encourages shielding outdoor lighting to reduce night-time glare and limit light being emitted into the sky so that the stars and other celestial objects can be visible. The benefits include aid to migrating wildlife, stress reduction and aesthetic value, as well as energy savings. Currently, Virginia Beach is installing LED lights on all new light fixtures and upgrading existing light fixtures to LEDs as they are naturally replaced.

Recommended Policies: Light Pollution

- All outdoor lighting should be of a design that accentuates the site and provides sufficient illumination for the development without projecting light and glare onto adjacent properties or into the sky.
- Lighting poles should be of minimum height, possessing a pedestrian scale, but provide adequate illumination.
- Lighting for pedestrians should be provided from storefronts using either indirect illumination form the building or direct illumination under canopies or awnings.
- Lighting of non-residential buildings should be designed as an integral part of the building's architecture to be as unobtrusive as possible. Lighting especially on the rear of buildings that face residential areas should be designed and placed so that it does not direct or reflect any illumination into residential properties.

Agenda for Future Action Recommendations: Light Pollution

- Develop and adopt a Dark Skies Initiative Administrative Directive.

Air Pollution

Chesapeake Bay Airshed and Watershed

Air pollution is the introduction of particle matter, gasses, odors, or other harmful materials into the Earth's atmosphere. Air pollution is a significant risk factor for a number of health conditions including respiratory infections, heart disease, COPD, stroke and lung cancer and can lead to difficulty breathing, coughing, asthma and worsening of existing respiratory and cardiac conditions. Hampton Roads is located at the eastern edge of the Chesapeake Bay Airshed, an area that is over four times larger than its watershed and covers much of the Ohio valley and the mid-Atlantic region. Distance from remote, industrial pollution sources and Hampton Roads' coastal location have contributed to fewer air quality problems as compared to other metropolitan areas of similar size.

While air pollution is largely a problem that must be addressed at the regional level, there are a number of actions that can be taken at the local level to demonstrate a focused approach at helping to reduce air quality declines, including transit improvements, ride-sharing and better facilities for bikes and pedestrians. Collectively, these actions will help to mitigate against projected pollution increases only slightly; but they can also offer transportation alternatives that can potentially reduce traffic congestion and thereby improve the region's air quality in the future, especially when combined with new technologies being developed in the transportation industry.

Recommended Policies: Air Pollution

- Reduce air pollutant loadings, in part, by working to achieve the 2014 Chesapeake Bay Watershed Agreement goals related to air pollution.
- Increase tree preservation and replacement efforts to help reduce CO2.

SOLID WASTE MANAGEMENT

The City of Virginia Beach is a leader in the field of waste management. Its recycling program is regarded as one of the most successful in the Commonwealth. The City has increased its operational capacity at the City Landfill #2 facility by participating in the Regional Refuse Derived Fuel (RDF) Plant and Power Plant that supplies electrical power to the Norfolk Naval Shipyard in Portsmouth, Virginia. The City must continue this leadership role by being proactive in looking ahead to the next generation's demands for solid waste disposal capacity once the current Landfill #2 facility reaches its operational life capacity.

Recommended Policies: Solid Waste Management

- Manage solid waste generation in such a manner to eliminate, reduce, or recycle waste products to the greatest extent practical.
- Operate the City's waste management facilities to safeguard land, air and water resources for economic and environmental efficiency.
- Ensure all appropriate adaptive reuse "close out" measures for the City's landfill are employed to protect the public health, safety and welfare.
- Recycle and separate waste materials at their source to help extend the life of the City's landfill and the regional landfill.

Agenda for Future Action Recommendations: Solid Waste Management

- Participate with the region's localities to develop a post-2018 SPSA (Southeastern Public Service Authority) Agreement for regional waste management.
- Expand participation and types of materials accepted in the City's recycling program.
- Promote increased recycling in the tourism industry through the development of incentives.

2.3 - HOUSING & NEIGHBORHOODS

HOUSING THAT IS SAFE, DECENT, DIVERSE, AFFORDABLE, AND ATTRACTIVE HELPS FOSTER:

- Neighborhood Stability and Quality
- Higher Quality Physical Environment
- Diverse Lifestyle Choices
- Civic Pride
- Lifelong Learning
- Economic Vitality
- Higher Quality of Life

INTRODUCTION

The purpose of this chapter is to provide comprehensive planning policies to guide and protect the future character of housing and neighborhoods citywide. A key indicator of every successful city is how well it safeguards the health and quality of its housing and neighborhoods. As defined in the Suburban Area Chapter, neighborhoods are"…a cohesive arrangement of properties, structures, streets, and uses within an area that most or all of which is residential, and that shares distinct physical, social and economic characteristics." Thus, housing and neighborhoods are discussed as one entity in this chapter as a cohesive arrangement, intertwined in affecting the existence of stable neighborhoods that thrive in the context of quality housing and civic pride of the residents.

Single Family Neighborhood

Policies complementary to this chapter that apply to neighborhood development and housing needs can be found in the Urban Areas and Suburban Area chapters. Design Guidelines for housing and neighborhood development and compatibility are found in the Comprehensive Plan's Reference Handbook for the Planning Area Development Guidelines and the Special Purpose Guidelines.

VISION

> Virginia Beach will be a City with vibrant, well-maintained neighborhoods where all residents have the opportunity to obtain desirable, safe, and affordable housing and enjoy a high quality of life.

This vision aligns with the city's *A Community for a Lifetime* report that envisions Virginia Beach to be a community with diverse, distinctive neighborhoods and diverse living choices.[xxxiii] This means that residents should find a wide range of well-built housing options in price, size, and location, with equal opportunity to rent or own housing and in neighborhoods that meet their needs. This opportunity includes access to a variety of affordable housing alternatives for all people including members of the vital services community, young professionals, the workforce, families,

and senior citizens. Our neighborhoods and housing are to be safe, attractive, well-maintained, continuously renewed, and refreshed. Residents will have easy access to amenities such as open space and places of historical and cultural significance. They will have places of employment at all times, high quality infrastructure and are linked by public transit and efficient roadways. Residents should expect that, when infill housing occurs, that it will be consistent with the neighborhood character and add value to the neighborhood. New housing development will meet the future needs of our population and achieve multiple goals for our overall development pattern.[xxxiv] Future needs also include housing for our homeless population. Virginia Beach does have a challenge with the higher cost of rental units and finding landlords that will rent to our homeless population. With the opening of the Housing Resource Center by early 2018, our idea will come to fruition for a single source for a variety of services to reduce the impact of homelessness. This facility will provide new shelter and housing options to help individuals and families get off the street. In addition, various types of programs will be available to help house our homeless.

Rendering of Housing Resource Center

Achieving this vision will result in recognition that Virginia Beach is a well-planned community of exciting, diverse, and interconnected neighborhoods; each offering unique opportunities for living, work, play, and growth in a culturally rich and safe environment.

EXISTING CHARACTERISTICS AND TRENDS IN HOUSING

The following section presents existing general characteristics, conditions, and trends that indicate vitality relating to housing including types, age, condition, value, tenancy, and overall affordability. Details and further explanation of these trends can be found in the Comprehensive Plan's Technical Report.

Existing Characteristics

The city's residential areas north of the Green Line offer a wide variety in housing and neighborhoods. Prevalent among this variety is the suburban pattern of low to medium density housing found in neighborhoods with diverse single-family and multi-family housing types, demographics, and property values. While not nearly as prevalent as the suburban form yet is a growing segment in the attributes of Virginia

Single Family Home in the Rural Area

Beach, is the more urban pattern with mid-rise to high-rise multifamily dwellings, often found in mixed-use developments in our Strategic Growth Areas. South of the Green Line to Indian River Road, the housing and neighborhoods range from suburban style subdivisions to typical farmhouses and rural residential single lot dwellings. Further south beyond Indian River Road are farm homes, rural residential neighborhoods, and estate homes.

Desirability Standards for Housing

Among the key trends shaping the future of residential development in Virginia Beach are the changing housing and neighborhood desirability standards of our young adults and our older adults. Generally, young adults tend to gravitate to centrally located urban areas as they seek a more urban lifestyle that offers a variety of opportunities to live, work, and play with access to more multi-modal transportation options, such as the city's Strategic Growth Areas (SGAs). The likely result of this trend will be less demand for suburban home ownership and more demand for a greater concentration of multiple housing choices in urban areas. For the older adults of Virginia Beach, otherwise known as Baby Boomers, their changing housing desirability standards are reflected in a greater demand for a wider range of housing options for seniors ranging from in-home care, to an urban lifestyle with lower home maintenance, to aging-in-place facilities and communities.

The Cosmopolitan Apartments at Town Center

Housing Development

For many years the percentage of single family detached homes in the city was near 60 percent. However, as of 2015, this percentage has gradually shrunk as single family detached dwellings now represent 56 percent of the city's housing units, reflecting an increasing trend that less single-family homes are being built. This is due in part to the dwindling supply of available land for development combined with the changing social, economic and market demands. Instead, more additions are being made to existing homes and multifamily development is increasing.[xxxv] This declining rate of construction of single family dwellings has been occurring since 2008 when only 1,743 single family units were constructed, while 4,007 apartments and 3,420 condos units were built.[xxxvi] Apartments now account for 19 percent of the city's housing stock, followed by duplexes and condominiums at 14 percent and townhouses at 11 percent. While this is relatively small on a percentage basis, it does reflect a trend toward more compact residential development. Compact

Compact Single Family Neighborhood

development is consistent with the city's comprehensive planning strategy that seeks to reduce sprawl, protect valued natural resources, and optimize efficient use of existing infrastructure.

Age of Housing Stock

The age of the housing units in Virginia Beach also plays a role as a vitality indicator of the city and its neighborhoods, as well as in planning for the future. The average age of housing units is increasing and will continue to increase through 2040. As of 2015, the city's Real Estate Assessor's records indicate that 42 percent of the housing stock is 40 years old or older. Assuming an annual growth rate of 1,300 housing units, which is about the current rate, this percentage will increase to 70 percent by 2040. Even more significant for this time period is that 60 percent of the housing stock will reach the age of 55 years old or older. Typically, it becomes a challenge to keep housing in this age range sustainable as it will more likely need not only maintenance, but also major repairs and improvements. This trend emphasizes that as housing stock ages, it is in the city's best interest to continue to protect stable neighborhoods and work toward assisting homeowners to reinvest in their homes to achieve healthy housing stock and neighborhoods.

Single Family Neighborhood circa 1970s

Physical Conditions of Housing

Given the relationship between neighborhood vitality and aging housing stock, the physical condition of housing units plays a key role in maintaining the general health of the city and its neighborhoods. It serves as a direct reflection of the city's efforts to promote vibrant, blight-free neighborhoods. As the housing stock ages, the city must monitor and evaluate the condition of housing to aid in knowing where and how to preserve and enhance neighborhoods. Other benefits to evaluating housing stock on a routine basis are that it serves as a key to understanding housing trends as well as determining where to concentrate enforcement and rehabilitation services. A repeatable method for surveying housing conditions every 3 – 5 years throughout the city would be valuable in this regard.

The method the city has used to gauge the physical condition of its housing stock began in 1990 as a process of periodically conducting "windshield" surveys to classify exterior conditions by one of four categories:

- Standard – no exterior deficiencies with zero building maintenance code violations;
- Deficient – minor defects to be easily corrected in the course of regular maintenance;
- Deteriorated - structure defects of greater severity that is not normally repaired in the course of regular maintenance; or
- Dilapidated - critical defects that are not feasible to repair and endanger the health or safety of occupants.

Five citywide surveys of a variety of housing units have been completed from 1990 to 2014. As measured by these five surveys, it is indicated that the condition of housing in Virginia Beach has

constantly remained in good condition overall despite an increase in average age. The 2014 survey indicated that over 86 percent of housing in Virginia Beach meets or exceeds the 'standard' or acceptable level.[xxxvii] This represents an improvement of 7 percent over the 24-year life of the survey program, compared to the results of the 1990 survey when 79 percent of our housing was found to be in 'standard' condition. The contributing factors to this high rate of acceptable housing conditions in 2014 may include the continued attractiveness of the city as a place to live: the increasing housing values; the delivery of effective public services, such as infrastructure and code enforcement of building and property maintenance; and, most importantly, property owners doing a good job of maintaining and reinvesting. However, it remains essential that the city continue to focus attention to using a proactive approach for identifying deficient and deteriorated housing, as well as fostering an approach that demands conformance with adopted building and property maintenance codes. This is the critical factor in eliminating widespread neighborhood blight while ensuring the preservation of safe and decent housing.

Achieving Ownership

For most homeowners, housing represents the family's largest single financial investment. However, based upon median income and housing values, the trend is showing that achieving home ownership is becoming more and more difficult.

Single Family Home

According to the city's Real Estate Assessor's Annual Report for Fiscal Year 2015-2016, the average value for residential units increased by 2.3 percent for 2014. As the average annual housing values in the city continue to increase, the result has been to further increase the size of an existing housing affordability gap that is already wide. For 2015 the average home price in Virginia Beach is $225,300[xxxviii], approximately 3.18 times the city's median income level of $70,900[xxxix] for a family of four making Virginia Beach moderately unaffordable for home buyers.

What this means is that household incomes are increasing much slower than the value of our housing stock. This affordability gap will preclude many potential homeowners from buying their first homes and will also put additional demand on the rental housing market, contributing to still higher rents.

Tenancy

The percentage of renters in Virginia Beach is increasing. From 2010 to 2014, renter occupied housing increased from 34.3 percent to 38.1 percent; while the percentage of owner occupied housing decreased from 65.7 percent to 61.9 percent.[xl]

Multifamily Housing

Housing Affordability

Housing affordability is a significant issue for tens of thousands of residents in Virginia Beach. Frequently this involves households that are financially stressed due to housing costs, otherwise known as being 'housing cost burdened'. The conventional public policy indicator of housing affordability in the United States, as defined by U.S. Department of Housing and Urban Development (HUD) **http://portal.hud.gov/hudportal/HUD** is that, in general, the term for affordable housing applies to housing for which the occupant(s) is/are paying no more than 30 percent of their income for gross housing costs, including utilities. Households that pay more than 30 percent of their income for housing are considered 'housing cost burdened' and may have difficulty affording necessities such as food, clothing, transportation, and medical care. This definition is not universally used since HUD notes that some jurisdictions may define affordable housing based on other, locally determined criteria. Therefore, this definition is intended solely as an approximate guideline. However, HUD further explains that a family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States.

Townhouse Neighborhood

This housing cost burden measure provides the actual "affordability outcome" of the housing choices made by individual households. These choices are constrained by not only each household's income and preferences, but also by the housing availability[xli]. In Virginia Beach, of the estimated 84,737 households with a mortgage; 40.8 percent are considered housing cost burdened and of the estimated 56,234 households renters, 53.4 percent are considered housing cost burdened. From 2010 through 2014, the combined effect of the housing price increases and increased demand for rental housing elevated rents from $1,200 to $1,291, almost an eight 8% percent increase.[xlii] This rate of increase clearly impacts affordability for many workforce and low and moderate income households.

GUIDING PRINCIPLES FOR HOUSING AND NEIGHBORHOOD PLANNING

Housing is an indispensable building block of neighborhoods and of the local economy. It contributes to household wealth, creates jobs, boosts local revenues, adds wages, and contributes to the tax base. The following guiding principles for housing and neighborhood planning recognize that the general health of the city's housing stock and neighborhoods are of critical importance to its citizens and to its continued economic vitality.

- Safe Housing and Neighborhoods
- Affordability and Equal Opportunity
- Quality Design and Energy Efficiency
- Stability, Preservation, Renewal, and Enhancement
- Compatible Redevelopment
- Housing with a Range of Affordability in Strategic Growth Areas
- Adequate Infrastructure and Transportation Connectivity

As expressed in Chapter 1, Section 1.3 - Suburban Area, planning principles have been established to encourage quality development of housing and neighborhoods so as to guard against blight and possible threats to their stability. This is accomplished by:

- Ensuring the appropriate use of land to accommodate future housing demand without sprawl;
- Promoting housing rehabilitation;
- Improved quality of design;
- Diversifying housing type and cost range; and
- Enhancements to the transportation system.

Safe Housing and Neighborhoods

The basic foundation of a good neighborhood is safety. Safety from crime drives many of our decisions about where to live. A continuing emphasis on protection from and intervention against crime through effective Police Department actions is a critical contributor to good neighborhoods. In addition, the city supports community design alternatives and development guidelines that help protect people and property, reduce crime, improve the attractiveness of the setting, and promote a sense of comfort and security. An excellent source for providing safety in design and development can be found in the city's *Crime Prevention Through Environmental Design* (CPTED) philosophy and program strategies.

Another technique, known as "Neighborhood Traffic Calming", increases public safety within neighborhoods by slowing vehicular movement and reducing 'cut through' traffic. This technique is discussed in the Suburban Area Chapter. Greater connectivity that allows safe movement from home to destinations beyond the neighborhood without having to rely on automobiles is also desired by our citizens. This is particularly desired for the city's Urban Areas.

Street Calming in the Old Beach Neighborhood

Hazard Mitigation

The safety of our neighborhoods can be threatened by a variety of potential events. One such threat that is very real to our coastal area communities is the potential for environmental hazards, such as hurricanes and wide-spread flooding, that disrupts the surrounding natural environment and adversely affects people's health. Depending on the level of a community's hazard vulnerability, recovery from such events can be sluggish and costly. Given the potential for these occurrences and its effect, it is essential that our communities in Hampton Roads have an awareness of and ability to prepare for mitigation to aid in recovery. In response to this need, a regional comprehensive mitigation approach was undertaken in 2011 to address the region's hazard vulnerabilities that exist now and in the foreseeable future. The outcome was the *Southside Regional Hazard Mitigation Plan,* found online at http://www.vbgov.com/government/departments/fire/emergency-mgmt/Pages/emer-mgt-reg-mit-plan.aspx, which recommends specific actions designed to protect residents, business owners, and the built environment from hazards that pose the greatest risk. These recommendations can be applied to reduce a community's future vulnerability by identifying hazards

and enacting local policies to guide growth and development, providing incentives tied to natural resource protection, and providing public awareness and outreach activities. One significant aspect of a community's future vulnerability is its land use development pattern. This is a particularly important theme in Hampton Roads where many communities are facing increasing growth rates which could determine their future vulnerability. Therefore, projected patterns of future development must be evaluated and considered in terms of how that growth will increase or decrease a community's hazard vulnerability over time. One area that the city must focus on is the identification of short and long term impacts from natural and man-induced events in order to prepare for long-term sustainability.

Sea Level Rise and Recurrent Flooding

Sea level rise is a major concern for Coastal Virginia, particularly for the Hampton Roads region. Hampton Roads ranks as the second most vulnerable area in the U.S. for sea level rise, behind New Orleans. Due to its coastal location, Virginia Beach continues to be an active participant in current regional planning efforts for Adaptation and Mitigation Planning for sea level rise and recurrent flooding. In 2013, Virginia Beach updated its floodplain ordinance. Among the major changes to the ordinance was the adoption of two feet of freeboard for all new construction and for substantial improvements to existing construction. In addition, the city has participated in several rounds of FEMA grant funding to elevate homes that have experienced sever repetitive loss. To date, seven homes have been elevated, another eight have funding to be elevated, and five homes are currently under review to receive funding. The City has also developed the Sea Level Wise Adaptation Strategy, which consists of four complimentary themes, each with a specific approach to flood risk management. The layers are designed to support each other, integrating structural and non-structural measures to ensure comprehensive flood protection across a range of environmental conditions. Adaptation strategies fall broadly into the categories of natural mitigation, preparing the community, engineered defenses, and adapting structures. In addition to planning for sea level rise, several neighborhoods have been impacted by flooding from storm and rainfall events, otherwise known as 'recurrent flooding'. The city is undertaking a drainage study to develop engineered solutions to address flooding in these neighborhoods and reduce their risk for flooding.

Recommended Policies: Sea Level Rise and Recurrent Flooding

- Concentrate new development at higher elevations outside special flood hazard areas.
- Use alternative construction techniques to minimize fill in the 'Floodplain Subject to Special Restrictions.'
- Wherever possible in the development approval process, avoid developing inside floodplain areas and similar low-lying areas.

Affordability and Equal Housing Opportunity

Fair housing is a fundamental civic principle. An important goal is to maintain and improve upon the diversity in housing and neighborhoods that is already a positive component of our city. This diversity includes the type, value, and design of housing and neighborhoods. This will, in turn, help the city meet its goals for a quality physical environment, community opportunities, and economic vitality. Overall, both now and in the future, the city of Virginia Beach is committed to ensuring that all citizens enjoy equal access and opportunity to an adequate supply of safe, attractive, decent, diverse, and affordable housing. This supply of housing needs to have a range of values of both owner-occupied and rental units that will accommodate present and future needs. In certain cases when housing units are being removed due to the development projects, the city should assist in the replacement of housing units being lost to public projects. The private sector should be encouraged to provide relocation assistance to residents who are displaced by private projects.

Affordability and Accessibility

Despite the slowdown in the housing market, housing prices in Virginia Beach still remain above what is considered affordable to moderate income, working professionals. Due to the gap between income and housing prices for both owners and renters, many of the city's vital workforce members are not able to live where they work, forcing them to commute longer distances or relocate to other communities. Being able to live where you work contributes to quality of life, not just for the individual, but for the community as well. The city recognizes that there is a need to increase affordable housing opportunities in safe, vibrant, well maintained neighborhoods, and to preserve existing affordable single-family and multifamily housing.

Rendering of Crescent Square - a Permanent Supportive Housing Apartment Development for Adults with Low-income

The city promotes the development and affordability of housing with equitable access for all citizens, including the provision of workforce housing. This includes promoting a range of incentives to create, increase, and preserve the supply of high quality and affordable housing, especially for those in the low to moderate income brackets. In cases of redevelopment, incentives should be provided that preserve and/or enhance affordability. These incentives might include:

- Reasonable density increases
- Development fee waivers

- Time-limited property tax abatements
- Expedited zoning and development reviews

One type of affordable housing is provided through workforce housing programs. To promote this type of affordable housing the city established the Workforce Housing Program (WHP) to help eligible buyers purchase a workforce housing unit with special financing that allows for more affordable monthly mortgage payments. Workforce Housing Units are supplied by developers who voluntarily include such units in their project design in combination with market-rate units; in exchange, they can receive a "bonus density" for their development at the time of conditional rezoning application consideration by city Council.

Workforce Housing – Riverlake Neighborhood

By allowing developers to build more units with no additional land cost, rental and "for-sale" units are more affordable for those who qualify. This incentive for an increase in density for the construction of workforce housing applies to those areas of the city in which the Comprehensive Plan recognizes to be appropriate, including Strategic Growth Areas. The WHP also gives the city a first right of refusal to buy back the property at the time of resale, therefore helping to maintain an affordable stock of homes. Equally important is to ensure that workforce housing will be well-designed, of high quality, and well-integrated into the overall development of which it is a component. A brief summary of development and design provisions relating to Workforce Housing development, such as the incorporation of WFH units with the market rate residential units, is addressed in the Comprehensive Plan's Reference Handbook. More information about the Workforce Housing Program can be found at: http://www.vbgov.com/government/departments/housing-neighborhood-preservation/about-us/Pages/workforce-housing.aspx.

Recommended Policies: Affordability and Equal Opportunity

- Encourage the development of housing types and arrangements for individuals and groups with special needs, including those with physical and mental disabilities.
- Facilitate development of affordable housing that is well-designed and constructed, available throughout the city, and accommodates citizens with special needs.

First Colonial Inn Independent Living for Seniors

- Support the location of special housing to be within areas that afford their residents proximity with easy access to useful services and facilities including transportation, hospitals, medical offices and facilities, shopping, financial services, and recreation and entertainment areas.
- Allow and encourage the type and location of housing for seniors designed to meet their special needs and services including, but not limited to, independent living, assisted living, and nursing facilities.
- Expand the supply of decent, safe, and affordable housing opportunities so that housing-related causes of homelessness are reduced.
- Facilitate the movement of people who become homeless into permanent housing as quickly as possible and provide opportunities for housing consistent with the city's housing and neighborhood policies.

veterans of the U.S. Armed Forces

Beach Park West - Permanent supportive housing that serves low-income special needs persons.

Quality Design and Energy Efficiency

Residential development should enhance the quality of life for residents by incorporating a safe, innovative design that integrates planning elements, such as connectivity, visually and functional open space, pedestrian networks, and landscaped streetscapes. The composition and context of these community design elements, as well as other design considerations, play a critical role in defining quality community appearance.

Single Family Home – Matthew's Green Neighborhood

Connectivity in a Residential Neighborhood

When designing any development, it is important to remember that good design does not interrupt the existing land use pattern or dominant the character of the surrounding area; rather, it is complementary. To accomplish this, design elements should include a scale and mass that exhibit a proportional relationship between the built environment and the people who will live, work, and play in that setting. Furthermore, quality in design and construction of housing and neighborhoods, in all price ranges, is the most cost effective approach to achieving these guiding principles over the long term. Sacrificing initial quality in the name of affordability, or any other reason, will only end up postponing costs and shifting them to others.

A recurring theme throughout this Plan, along with enhancing the quality of life for residents, is that new housing and new developments, as well as the rehabilitation and revitalization of existing housing and neighborhoods, should be aligned with the city's overall policies of being ecologically responsible and energy efficient. This can be achieved by reducing environmental impact, reducing energy use, and creating a sustainable, built environment.

Recommended Policies: Quality Design and Energy Efficiency

- Housing locations should be designed to be attractive and affordable to a range of income groups, ages, cultures, and household types.
- Encourage the development of housing that is ecologically responsible, energy-efficient and contributes to our quality physical environment.
- Use all available resources including those provided by the city's Historical Review Board and Historic Preservation Commission, as well as the Princess Anne County/Virginia Beach Historical Society to preserve designated historic resources.
- Seek responsible, innovative, and mutually agreeable options with homeowners and developers, where appropriate, in order to preserve existing historic structures and properties at risk.

Historic Carraway House Circa 1735 Saltbox Style

Stability, Preservation, Renewal, and Enhancement

Most of the city's housing and neighborhoods are successful, attractive, and unchanging. The majority are located in the Suburban Area. Although the guiding principle that this Plan "… recognizes the primacy of preserving and protecting the overall character, economic value and aesthetic quality of the stable neighborhoods…" was written for the Suburban Area chapter, this principle can be easily applied citywide. Therefore, this chapter reiterates the crucial significance of preserving, renewing, and enhancing our stable neighborhood areas while sustaining the quality, diversity and character of the housing stock and our neighborhoods over time. Key elements to achieving preservation and renewal include:

- Ensuring Safety
- Ensuring Property Maintenance
- Providing adequate public services and facilities

The city has several activities and programs that have successfully formed the basis our ongoing work with neighborhoods and homes needing renewal or showing conditions of blight. These programs include:

- *Affordable Home Repair Loans:* provides affordable loans for emergencies and exterior home repair through the Housing Rehabilitation Program to help homeowners repair their homes and reduce future maintenance costs.
- *PREmier Homes and Neighborhoods Program:* Provides a variety of free resources and tools for proactive home maintenance and improvements while maintaining neighborhood character and design.
    - The *Virginia Beach Pattern Book* was created as a tool to guide homeowners in the appropriate renovation, remodeling, or updating of their home in the context of their neighborhood design.
- Grant opportunities are available for non-profit organizations wishing to develop or maintain affordable housing.

- In 2016, a housing study will be conducted to help define additional strategies and initiatives for achieving neighborhood preservation.

Compatible Redevelopment

Preserving neighborhood quality requires that all types of new residential and non-residential development either maintain or enhance its context. This can be particularly challenging as certain retail centers adjacent to residential areas become underperforming, creating opportunities for redevelopment. Often these are prime locations that may be appropriate for adaptive re-use or mixed-use redevelopment that includes primarily residential uses or a mixed use development with residences. Where found to be compatible with adjoining uses, this type of redevelopment could improve the quality of the surrounding area, help absorb some of the city's future housing demand, and increase the tax base. Achieving these goals is predicated on:

- compatibility with surroundings;
- conformance to AICUZ policy;
- quality of site and buildings;
- attractiveness of site and buildings;
- inclusion of workforce housing that promotes affordability;
- reasonable site configuration;
- safe and efficient access; and,
- energy efficient design.

Housing with a Range of Affordability in Strategic Growth Areas

The policies for the Strategic Growth Areas (SGAs) are to be applied where areas are not constrained by AICUZ regulations. These policies are intended to provide benefits that include reducing sprawl, expanding housing affordability, reducing income isolation, increasing job accessibility, and accommodating alternative, cost-effective capital improvement and transportation systems. By applying these polices to those SGAs, the result will be that SGAs will have the mixed-income and mixed use neighborhood developments with a variety of housing types that will advance the city's goals of providing diverse, high-quality and affordable housing. For this reason, each SGA Master Plan includes a portion of workforce housing and other types of affordable housing as a design principle in order to provide of diversified housing choices, including workforce housing, as well as recommendations for mixed use, mixed-income, and transit-oriented development. Despite this, success in realizing housing affordability in the SGAs has been difficult. Providing additional incentives may be needed to encourage the inclusion of workforce housing in new development proposals.

Recommended Policies: Housing with a Range of Affordability in SGAs

- In the SGAs that can include residential uses, design housing to be attractive and affordable to a range of income groups, ages, cultures, and household types with an emphasis on workforce housing.
- Promote and facilitate Transit Oriented Development (TOD) principles to achieve a mix of urban housing types with a range of market values. This should include workforce housing within pedestrian-friendly communities in proximity of transit stops with an effective bus feeder system and other transit hubs.

- Promote and facilitate public/private shared cost to provide infrastructure needs, including structured parking.

Adequate Infrastructure and Transportation Connectivity

Providing adequate infrastructure and transportation connectivity ensures the overall quality and livability of neighborhoods, provides civic pride, and maintains property values. Connectivity between neighborhoods and other areas reduces car use and encourages walking, bicycling, and other physical activities.

Recommended Policies: Adequate Infrastructure and Transportation Connectivity

- Coordinate the timing and location of capital improvements in neighborhoods as inter-related systems in order to achieve multiple outcomes and advance the city's strategic goals.
- Coordinate transportation, jobs, and housing to maximize accessibility for all citizens.
- Align transportation infrastructure with housing facilities for seniors and persons with disabilities.
- Continue to improve and expand transportation and transit options for the senior and disabled communities, including appropriate sidewalk facilities and properly located senior housing opportunities.
- Locate housing for seniors and disabled persons within walking (or other means of mobility) proximity to transit stops.

Agenda for Future Action Recommendations: Adequate Infrastructure and Transportation Connectivity

- Develop an integrated housing strategy addressing affordability and neighborhood preservation, based on best available data and national best practices
- Perform a housing study to help define additional strategies and initiatives for achieving neighborhood preservation.

2.4 - ECONOMIC VITALITY

VISION

Through its visioning process with *Envision Virginia Beach 2040* and its strategic planning, Virginia Beach has chosen to become a place where all citizens and businesses can prosper. We desire to be able to create our own future because we are less dependent than ever before on the state and federal governments. Our goal is for our economy to be vibrant, growing, and sustainable. We desire to have median household incomes that exceed the national average, and for incomes continue to rise. We aspire to attract visitors from around the world throughout the year to enjoy our beautiful natural environment and the various amenities that our hospitality industry provides. We aim to attract, retain, and grown high-caliber companies offering good salaries to employ our young adults and attract creative youth from other markets, and we want this talented workforce to live and thrive in our city. We believe that there are rich opportunities for people of all ages to participate in our vitality.[xliii]

In the future, we expect that our new and existing businesses will continue to benefit from a well-trained, diverse and available workforce, particularly from our transitioning U.S. Veterans, even as those businesses' needs continually change. We realize, more than ever, the value of our small businesses and desire to become a leader in the new business growth and development of minority-owned firms. We want to maximize our investment in infrastructure by developing our land so that it preserves our quality of life and physical environment and serves the needs of generations to come. We aspire for all public and private development to be sensitive to the environment, enabling us to attract sustainable businesses. This sensitivity is valued highly by our citizens, the business community, and visitors. To those ends, we must remain committed to a regional international airport, an enhanced regional public transportation system, and continued improvement of state and city road systems to make it easier for people to get to Virginia Beach and more convenient to move around the city and region.[xliv] The extension of light rail into Virginia Beach Town Center should optimize development and redevelopment, as well as associated job growth for the Pembroke and Newtown Strategic Growth Areas, in particular.[xlv]

Defense spending, federal and state aid, and consumer spending are not as strong as we had experienced prior to 2008. To be resilient and a city of choice, new avenues of economic growth are needed. We believe our future growth will depend on the City's ability to focus on greater diversification of its economy, such as a focus on the biomedical, cyber security, and healthcare fields, while growing and retaining our existing tourism industry, as well as our hallmark employers and our base of Small, Women and Minority-Owned (SWaM) businesses.[xlvi] As an early

leader in fostering strategic partnerships within the fields of Science, Technology, Engineering, Arts, and Mathematics (STEAM), as well as through entrepreneurship innovation opportunities between Virginia Beach City Public Schools, the City's Department of Economic Development, and our institutes of higher education, we hope to yielded young students choosing to stay in our city because of the high quality of life we continue to enjoy. Those highly qualified STEAM workers should, in return, serve us well to help Virginia Beach become a national and international hub for the biomedical, cyber security, fiber, alternative energy, and healthcare industries. [xlvii]

STEM Robotics Demonstration

CURRENT REALITY AND TRENDS

Our current reality in 2016 is that, after many years of prosperity, we now find ourselves slowly climbing out of what has been an uncertain and volatile economic environment. The local economy has been trying to recover from the significant decline of the housing market – the city's primary source of revenue. Property values in Virginia Beach declined beginning in 2009 but are now rising slowly. Similarly, household income has been on the decline since its 2008 peak. However, according to the most recent 5-year forecast, both residential and commercial real estate assessments are expected to grow each year over the forecasted period. Fifty-five percent of our residents are able to live and work in Virginia Beach. [xlviii]

Pressure is mounting to remain competitive and make it a priority to balance sustainable land use development with economic growth. Maintenance and management of our roads, sanitary sewer, potable water, and stormwater systems have taken on more importance as these systems have begun to show defects consistent with aging infrastructure. This maintenance must be performed continually, yet there is a shortfall of ongoing funding. Additionally, necessary improvements remain unfunded, causing a growing backlog of needs with costs continuing to grow. It is imperative that we work very closely with the Hampton Roads Sanitation District (HRSD) during the development and subsequent implementation of the Regional Wet Weather Management Plan to ensure that the work priorities for rehabilitation of the City's sanitary sewer systems mesh with and support our economic drivers. [xlix]

The hospitality industry continues to trend upward. Significant future growth requires the ability to compete nationally with such economic development enhancements as a convention center headquarters hotel and major entertainment venue offerings, better access for new domestic and international markets, and higher quality core products (e.g., new hotel development, 19th Street corridor, additional hospitality and sports tourism venues and attractions). Our regional transportation system in its current state will limit our growth, unless the system is substantially improved. The new regional transportation fund is helping to address some of these issues. The strategy of guiding the visitor experience throughout the City's wealth of beachfront communities, as well as to the growing Town Center, has aided in distributing tourism economic benefits. [l]

Our highly skilled workforce makes it attractive for companies to choose to locate here. This is a testament to our robust and effective workforce development programs. There are strong STEAM opportunities here, and the partnership between Virginia Beach City Public Schools, the Virginia Beach Department of Economic Development and our institutes of higher education will provide highly qualified workers for these industries. Additionally, graduation rates from our public schools continue to rise, as do test scores. [li]

LifeNet Headquarters Building in Princess Anne Commons.

ECONOMIC VITALITY FRAMEWORK

Envision Virginia Beach 2040, prepared by citizen's committee appointed by the Mayor, was endorsed by City Council in 2013. The Committee mission: "To provide a thoughtful vision for Virginia Beach in the Region to achieve by 2040." This vision document describes how our city will look and what people will experience as residents and visitors in 2040. It articulates a high quality of life in Virginia Beach. "Thriving Economy" is one of the vision's 6 major themes, and states:

> *We have a thriving regional economy that leverages our assets with high employment and dynamic business growth. We educate, attract, and retain a talented and diverse workforce, and provide a broad base of employment with an emphasis on high-paying jobs.*

The City's *Economic Development Strategy* is a key tool to help ensure we achieve this vision over time. The 2015 Strategy identifies six priority areas that we should focus on in the coming years:

- Target Industries
- Economic Vitality
- Diversification, Retention, Innovation
- Project Development
- Workforce Development
- Research

This is supplemented by the City's *2015-2017 Strategic Plan*, which presents strategies to help direct our efforts toward making progress in each of these priority areas as follows: [lii]

- We desire to be a top quality, year-round destination for domestic and international visitors and our citizens.
- We desire to be a growing, diverse economy that attracts and retains private companies that want to invest.
- We desire our workforce to be highly talented and to have the skills necessary to meet the needs of our targeted businesses.

- We will provide and maintain the infrastructure required to support economic vitality and develop our resources in a sustainable manner (economically, socially, and financially), so that we are an appealing community for citizens, visitors and businesses.

- Recognizing that defense spending is likely to decline over time, we value and support our military installations and local commands.
- We develop plans, incentive efforts, detailed specific area plans, programs, zoning codes, and projects to implement the Strategic Growth Area Plans and other adopted area plans throughout the city.
- We should complete the planning process and public involvement to secure funding for, and support implementation of, a fully integrated, comprehensive transportation system.

Sunrise over Virginia Beach Oceanfront Resort Area

To realize our economic vitality goals and strategies, our long-range land use planning process should seek to identify a sufficient amount of land area with appropriate zoning, in the most strategic locations. The City's Strategic Growth Areas (SGAs), which are described in Chapter 1, Section 1.1 - Urban Areas (Strategic Growth Areas), and Strategic Economic Growth Areas (SEGAs), which are described below, are the primary focus areas for the City's long-term economic development and efficient land use growth strategy. It is the City's desire to direct the majority of its future growth and development (or redevelopment) into these areas in a manner consistent with the adopted plans, policies, and design guidelines for these areas. To attract private sector partners who want to work with the City to achieve its desired outcomes for these areas, City Council has recently updated its policy, "Guidelines for Evaluation of Investment Partnerships for Economic Development." For assistance with developing in the SGAs and SEGAs or information regarding City Council's policy, visit www.vbgov.com/sga.

Recommended Policies:

- All economic development projects should adhere to the following:
  - land use strategies set forth for each Planning Area of this Comprehensive Plan;
  - adopted area plans (e.g., SGA Master Plans, Historic Kempsville Area Master Plan, Virginia Aquarium & Owl Creek Area Plan, et als.) adopted by reference as part of this Comprehensive Plan;

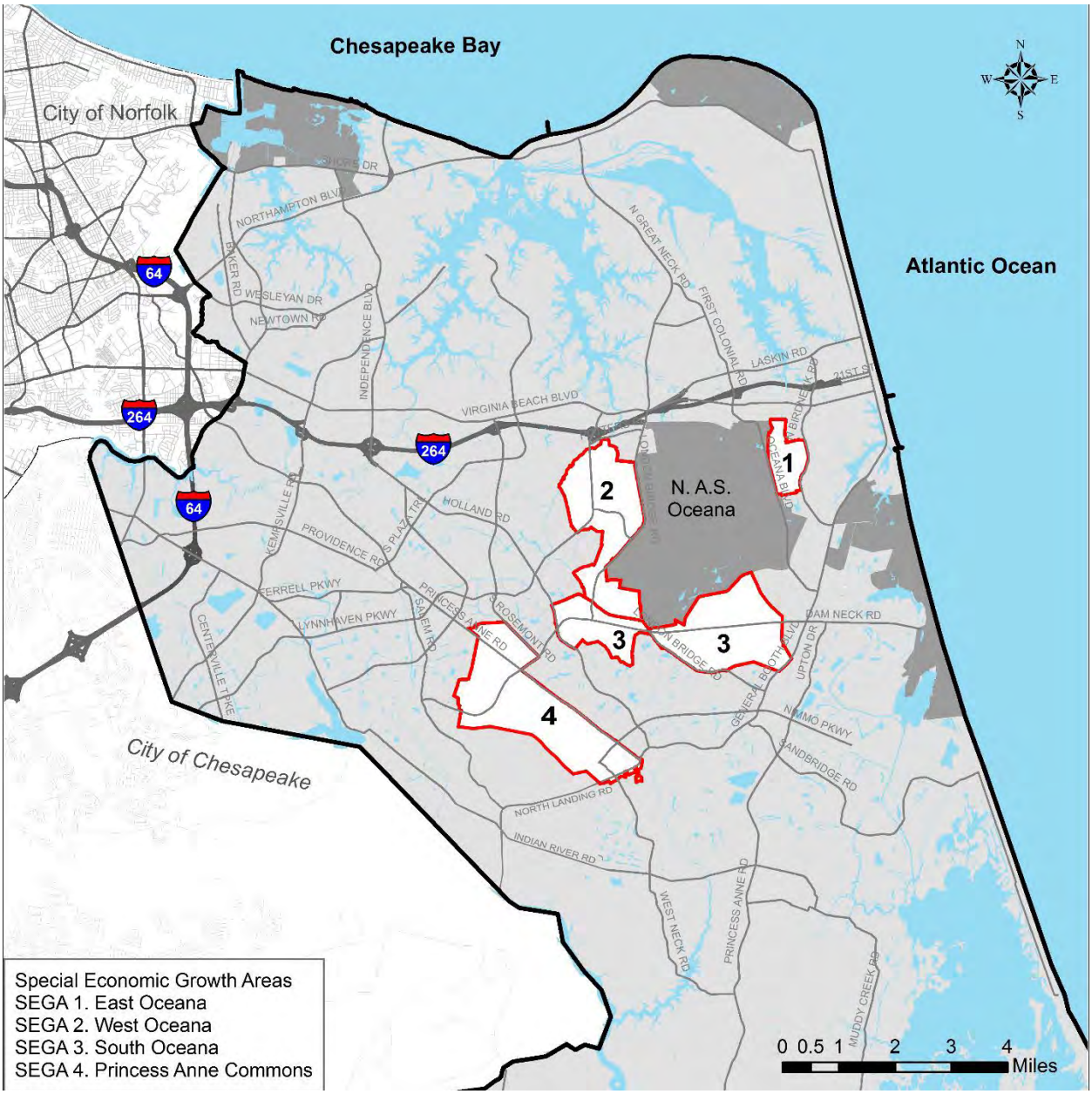
  - Suburban Focus Area (SFA) and Special Economic Growth Area (SEGA) recommendations contained in this Comprehensive Plan; and,
  - all adopted Design Guidelines adopted as amendments to, or incorporated by reference as part of, this Comprehensive Plan.
- Economic development activity should further the vision for "Economic Vitality" set forth in the Envision Virginia Beach 2040 visioning document. It should also further the strategies set forth in the Economic Vitality Strategy and Quality Physical Environment Strategy in the City's Strategic Plan.
- Projects should consider how to best incorporate the design principles contained in the City's Integrated Site Design Manual, once adopted by City Council.

SPECIAL ECONOMIC GROWTH AREAS (SEGAs)

The City has designated 4 Special Economic Growth Area (SEGAs) on the Comprehensive Plan's "Planned Land Use Map":

- SEGA 1 – East Oceana
- SEGA 2 – West Oceana
- SEGA 3 – South Oceana
- SEGA 4 – Princess Anne Commons

SEGAs are viewed as special areas with significant economic value and growth potential, with a primary consideration being adjacency to NAS Oceana or within the Interfacility Traffic Area high noise overflight zone. The City supports development and redevelopment of these areas consistent with Air Installation Compatibility Use Zones (AICUZ) ordinance provisions and the City's economic growth strategy.



SPECIAL ECONOMIC GROWTH AREA (SEGA) LOCATOR MAP

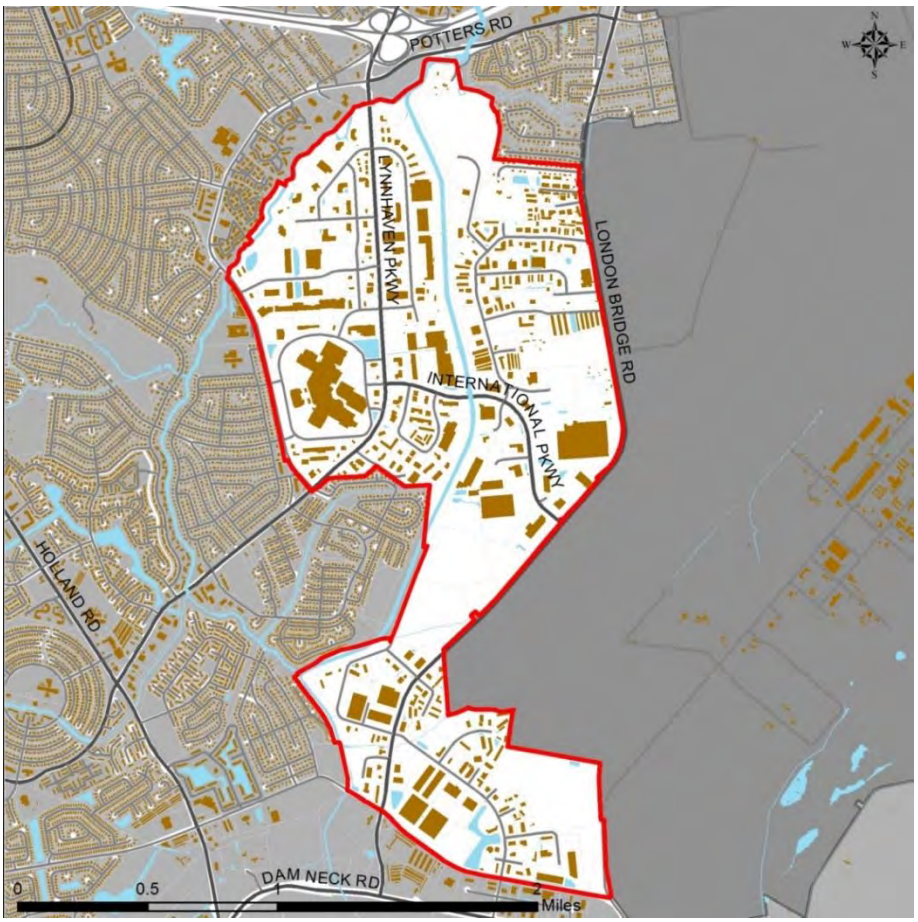
Special Economic Growth Area 1 – East Oceana

Special Economic Growth Area 1 - East Oceana encompasses the property generally located on both sides of Bells Road between Oceana Boulevard and Birdneck Road. It includes most of the land to the south of Southern Boulevard. As one of the City's Planning Areas, it overlays a portion of the Historic Seatack Community on the west side of Birdneck Road; therefore, sensitivity to the neighborhood context and needs of that community are very important considerations in realizing compatible economic development here. In addition, much of this area is constrained by floodplain or Navy restrictive easements and all of it is within the highest AICUZ noise zone. The southern part of this tract is outside any accident potential zone. The planned Southeastern Parkway and Greenbelt will impact the western part of this area. Modeling efforts are underway to determine whether or not the Southeastern Parkway and Greenbelt should remain as part of the City's Primary Roadway Network Plan to serve this Economic Growth Area and other parts of the City or if an alternative solution is more responsive to the today's needs and those of the future, based on adopted future land use plans.

Recommended Policies:

- In the eastern area- low intensity light industrial uses and limited retail with significant buffers to shield the surrounding Seatack neighborhood from possible intrusive impacts.
- In the western area -medium intensity industrial and other utilitarian activities.
- The southern part of this site is not encumbered by accident potential zones and may accommodate new or relocated commercial and other non-residential uses that are AICUZ compatible.

Special Economic Growth Area 2 – West Oceana

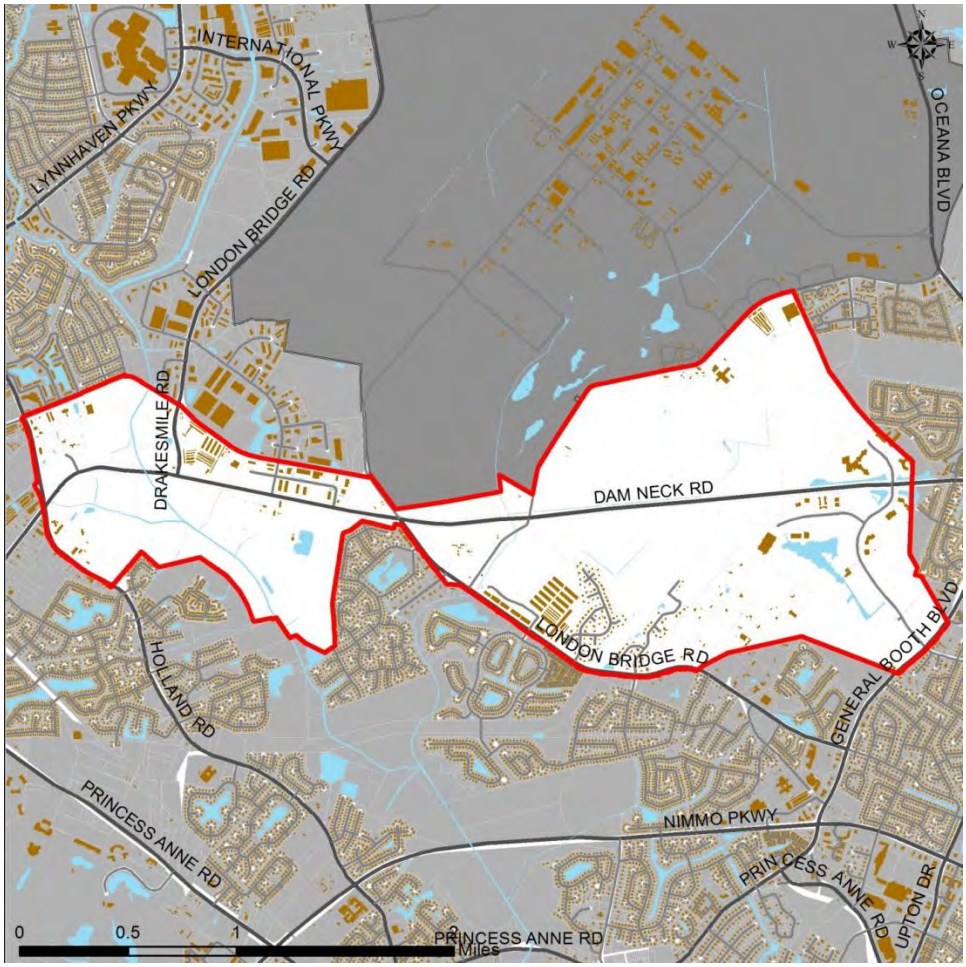


Special Economic Growth Area 2 - West Oceana is generally bound by London Bridge Road, Lynnhaven Creek, South Lynnhaven Road, and Potter's Road. It includes Lynnhaven Mall, surrounding retail and office complexes and Oceana West Industrial Park. Much of this area is subject to Navy restrictive easements and all of this area is inside the AICUZ high noise zone. The majority of this area has been subdivided and is zoned for commercial and industrial uses.

Recommended Policies:

- This entire site is within the 75+ DNL noise zone. All new or improved development proposals must adhere to the City's AICUZ provisions.
- The area west of Lynnhaven Parkway is recommended for corporate office, retail, and other comparable commercial use due to this site's high visibility. Special attention should be given to ensure high quality site, landscape and building designs.
- The undeveloped tract on the southeast corner of Lynnhaven Parkway and Potters Road is an appropriate site for open space acquisition. However, if this does not occur, this site should be developed for low intensity retail and/or office uses. Development must respect the adjoining natural open space area.

Special Economic Growth Area 3 – South Oceana

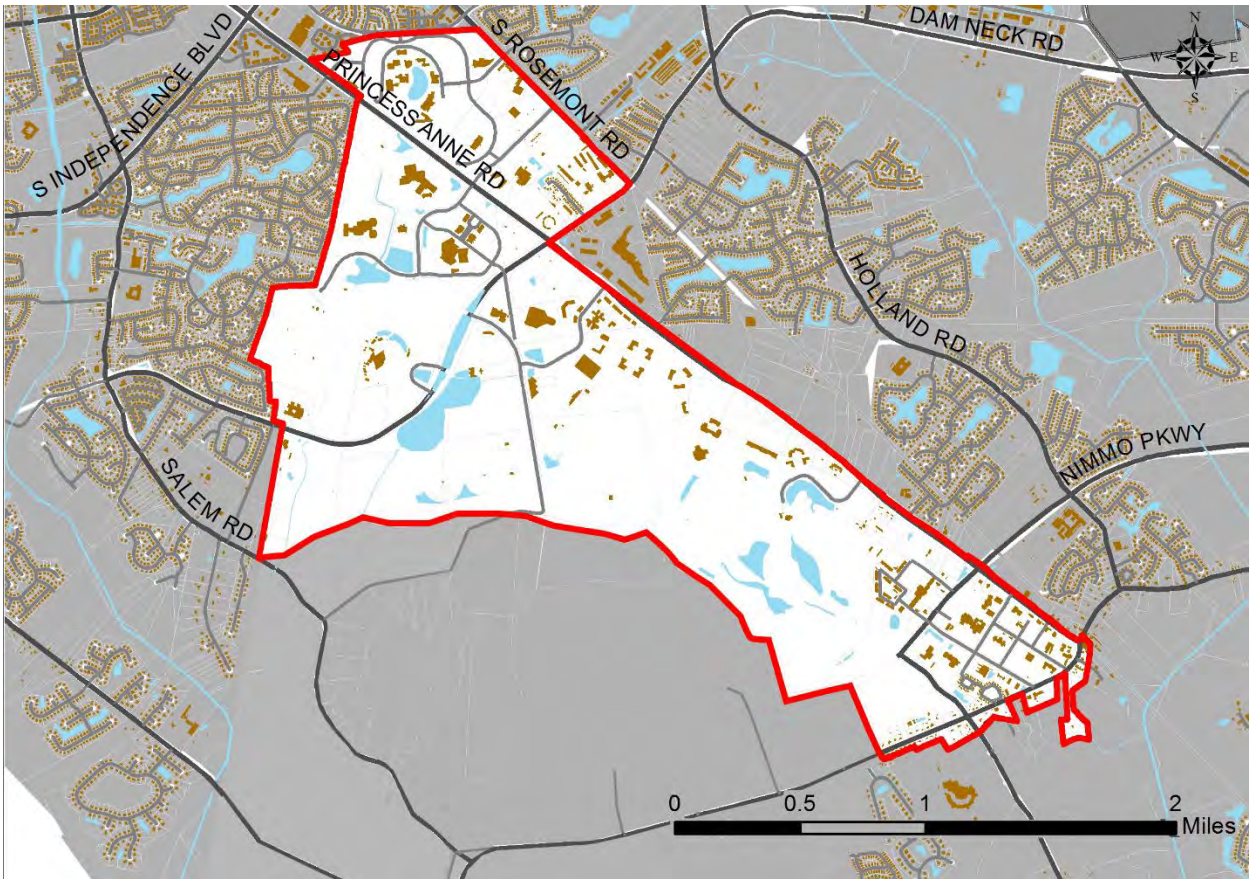


Special Economic Growth Area 3 - South Oceana is a large hourglass shaped tract of land encompassing properties on both sides of Dam Neck Road between Holland Road and Corporate Landing Parkway. There are large tracts of undeveloped land in the area east of London Bridge Road. High quality corporate businesses have developed in the Corporate Landing Business Park. The proposed Southeastern Parkway will traverse the eastern part of this strategic area generally in a northeast to southwest direction and, when built, will provide this area with good regional access.

In the western part of this area, between Drakesmile Road and Holland Road, there are considerable environmental constraints. To varying degrees, portions of this area are impacted by high noise zones, accident potential zones and Navy restrictive easements. Floodplain and other environmental constraints affect the western region of this area south of Dam Neck Road. However, the area located north of Dam Neck Road and east of Holland Road is free of these constraints and, therefore, possesses greater development opportunities.

Recommended Policies:

- No additional residential uses are recommended for any part of this area.
- All proposed land uses in this area must align with the City's AICUZ provisions and Oceana Land Use Conformity program.
- Every effort should be made, where feasible, to consolidate parcels to achieve a more unified development pattern.
- Accesses to London Bridge and Holland Roads should be kept to a minimum.
- Direct private access to Dam Neck Road will not be permitted except when the property in question has no other reasonable access to the circulation system as it is part of the City's Access Controlled Roadway Network (see Chapter 2, Section 2.1 - Master Transportation Plan).
- Build attractive thoroughfares to serve this area.
- Corporate Landing Business Park is located in the eastern part of this site and serves the mid-eastern area of the City. It is reserved for high quality, high wage employment consistent with the City's Economic Development Strategy.
- High quality employment, corporate parks and light industrial uses are recommended for other undeveloped tracts in the eastern part of this SEGA.
- Measures to mitigate negative impacts on adjoining stable residential areas must be part of any development proposal in this area. Mitigation measures should include adequate screening, and light and noise attenuation in building and site design.
- Attractive building designs should be showcased along key arterials and the proposed Southeastern Parkway route.
- The western region of this area is planned for non-residential uses to include a mix of light industrial, low- rise office and limited retail use.



Special Economic Growth Area 4 – Princess Anne Commons

SEGA 4 – The northern portion of Princess Anne Commons was designated in recognition of the land development constraints and economic development opportunities associated with this area's location within a military aircraft overfly zone. This area will focus on providing locations for:

- Participatory sports
- Entertainment venues
- Tourism
- Biomedical research
- Hospitality uses which can benefit from their proximity to campuses of Tidewater Community College and the Old Dominion University/Norfolk State University.

Proposed developments within SEGA 4 –Princess Anne Commons should adhere to the following general recommendations, unless otherwise addressed in Chapter 1, Section 1.4 - Princess Anne Commons & Transition Area.

Recommended Policies:

- Strive to achieve extensive open space connectivity throughout the Commons.
- Protect the most sensitive land areas where natural resources have been identified.
- Residential development should be limited to areas outside of AICUZ restricted areas.

- Mixed-use town center-style development should be planned within the Municipal Center and Historic/Cultural District.
- The *Design and Development Guidelines Princess Anne Commons* should be adhered to for high quality building types to ensure appropriate quality and character.
- Except as specified in the *ITA and Vicinity Master Plan*, expansion of suburban infrastructure should be designed in northern, but not southern, part of Princess Anne Commons and not south of Indian River Road.
- Development should remain limited along existing unimproved roadways.
- Explore the potential for extension of mass transit service to Princess Anne Commons and the Municipal Center from the Town Center (Pembroke SGA).

Agenda for Future Action Recommendations: Economic Vitality

- Continue to promote Virginia Beach as a year-round destination.
- Develop a Transit-Oriented Development land use and zoning strategy for the SGAs.
- Reshape non-conforming business districts (e.g., Pembroke SGA-Central Village District, etc.) into well-planned and designed commercial nodes that are compatible with adopted plans and design guidelines. Recent examples of this include London Bridge Commerce Center repurposing in the Lynnhaven SGA and various commercial areas in the Resort SGA.
- Update the Master Plan for Corporate Landing Park and the associated design guidelines.
- Inventory the conditions of neighborhood commercial centers and strip shopping centers. Consider incentives for façade improvements (e.g., cost-share grants, etc.). Consider opportunities for repurposing over-parked commercial parking lots for possible permanent or temporary/seasonal infill uses, while adhering to recently updated commercial use parking standards in the Zoning Ordinance.
- Inventory industrial zoning districts to determine if there is a sufficient supply of appropriate zoning for both light and heavy industrial uses, especially for the types of desired compatible land uses within SEGAs.

ENDNOTES

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[3] Beyond Traffic 2045 – Trends and Choices , U.S. Department of Transportation
[iv] http://www.vbgov.com/government/departments/sga/transportation-planning/Pages/complete-streets.aspx.
[v] US Census Bureau, 2013
[vi] http://hrtpo.org/uploads/docs/070115TTAC-Enclosure%2017-State%20of%20Transportation%20in%20Hampton%20Roads%202015-Draft%20Report.pdf
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[xx] http://www.orf-eis.com/about.asp
[xxi] HRTPO, 2015 State of Hampton Roads and Virginia Port Authority
[xxii] Virginia Port Authority, 2040 Master Plan
[xxiii] Hampton Roads Transit, TRAFFIX 2015 Annual Report
[xxiv] http://www.hrtpo.org/uploads/docs/070115TTAC-Enclosure%2017-State%20of%20Transportation%20in%20Hampton%20Roads%202015-Draft%20Report.pdf
[xxv] http://www.hrtpo.org/uploads/docs/070115TTAC-Enclosure%2017-State%20of%20Transportation%20in%20Hampton%20Roads%202015-Draft%20Report.pdf
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ENDNOTES

[xxxiii] A Community for a Lifetime - A Strategic Plan to Achieve City Council's Vision for the Future 2015-2017
[xxxiv] Strategic Plan 2014 - 2019 -2029
[xxxv] City of Virginia Beach Department of Housing and Neighborhood Preservation
[xxxvi] Ibid
[xxxvii] Ibid
[xxxviii] City of Virginia Beach Real Estate Assessor's Office
[xxxix] U.S. Department of Housing and Urban Development
[xl] Housing Virginia Sourcebook
[xli] Ibid
[xlii] Housing Virginia Sourcebook

ENDOTES:

[xliii] City of Virginia Beach. *2015-2017 Strategic Plan, November 2014 (Economic Vitality Strategy).*
[xliv] *Ibid.*
[xlv] City of Virginia Beach. *Draft 2016-2018 Strategic Plan, November 2015 (Economic Vitality Strategy).*
[xlvi] *Ibid.*
[xlvii] *Ibid.*
[xlviii] *Ibid.*
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[lii] City of Virginia Beach. *2015-2017 Strategic Plan, November 2014 (Economic Vitality Strategy).*

CHAPTER 3 - PLAN IMPLEMENTATION

It is incumbent on all of us to do our part to ensure the success of this Comprehensive Plan through its implementation. Plan implementation occurs in various ways.

Foremost, it begins with establishing familiarity with the plan. The Comprehensive Plan is, by its very nature, the articulation of the City's future planned land use vision and repository of its associated land use policies. In order to bring about that shared vision, familiarity with the five Planning Areas, the City-wide elements, their corresponding policies and recommendations, and the Reference Handbook-- which references all other plans, studies, and design guidelines documents adopted by reference as part of the Comprehensive Plan-- is essential. This applies whether the user is a customer preparing an application for development review or a City official who references it during the review to determine consistency with City policy. The Planning Commission and the City Council should consult the Comprehensive Plan's Policy Document and Reference Handbook in their consideration of discretionary development applications. The *Code of Virginia* (15.2-2232) states the Comprehensive Plan "shall control the general or approximate location, character and extent of each feature shown in the plan." Decisions made should be consistent with the City's long-range vision for 2040 and the policies contained in this plan.

The locally-adopted Capital Improvement Plan (CIP) is one of four tools Virginia's local governments are authorized to use when implementing their local comprehensive plan. The CIP is one of the oldest tools of plan implementation in existence. For too many years, the tool was viewed as a resource only to be used by public works and engineering. Over the past thirty-five years, however, the CIP has come into its own as a tool of plan implementation.[i] By design, the CIP focuses on a locality's immediate and longer-term capital assets and infrastructure needs. Capital assets and infrastructure needs traditionally include land, facilities, parks, playgrounds, streets, bridges, bike and pedestrian systems, water and sewer systems, technology systems and equipment, and other items of value from which the community derives benefit for a significant number of years.[ii]

The *Code of Virginia* requires that the adopted CIP be consistent with the adopted local Comprehensive Plan. Recognizing the important linkage between long-range land use planning and capital improvement planning, the *Code of Virginia* (15.2-2239) enables local planning commissions to, at the discretion of the governing body, prepare and revise annually a CIP based on the comprehensive plan of the locality for a period not to exceed the ensuing 5 years.[iii] In Virginia Beach, although the Planning Commission has not been delegated this authority by the City Council, there is still a proper role for the Planning Commission to play as a stakeholder in the preparation and public review of the CIP.

Plan implementation is also accomplished by monitoring and reporting on our progress. It is important to do this with regard to both the effectiveness of the policies contained in the Comprehensive Plan (how well they are working or not to achieve desired outcomes) and the implementation of the plan's recommendations contained in the "**Agenda for Future Action**."

An "Agenda for Future Action Summary" table is presented in this chapter as a quick reference tool. It is derived from the recommended next steps actions following adoption of the plan that are contained in each corresponding chapter of the Policy Document. It is presented with suggestions for which entity(s) (e.g., City Administration or community group) should take lead responsibility

for implementing that stated recommendation, and a suggested time frame of completion. In essence, it serves as our blueprint for important next steps that either reinforces or adds to the land use policies put forward in this plan. The implementation time frame purposely corresponds with the City's 6-year CIP, the first year of which is adopted annually by City Council as the Capital Improvement Budget; and, because the Planning Commission is required by state law to conduct review the Comprehensive Plan in 5-year intervals and recommend to City Council any necessary updates or amendments.

By monitoring progress our progress, and holding both City officials and the public accountable for partnering on its implementation, we can be informed and make necessary mid-course corrections in order to stay focused on achieving our city's long-range range for 2040. It is recommended that the Department of Planning & Community Development prepare an annual report on Comprehensive Plan effectiveness and implementation status to be presented to the Planning Commission. Subsequently, the Planning Commission should prepare an annual report to the City Council with any intermediate recommendations for amendment. This ensures that the Comprehensive Plan stays dynamic and responsive as needs change and new situations arise over time, in between the 5-year review periods.

Finally, another key plan implementation tool is the systematic and holistic review of the City's various development ordinances (e.g. Comprehensive Zoning Ordinance, Subdivision Ordinance, Site Plan Ordinance, Floodplain Ordinance, Landscape Ordinance, etc.). The land use vision articulated in the Comprehensive Plan depends on our land development regulations for implementation. Therefore, it is incumbent upon City leaders and administrators to use this Plan's recommendations as the platform for updating local development regulations, so that they can enable or bring about the desired outcomes we seek for our city's future growth and development. The development ordinances, coupled with public and private investment decisions, bring to life our many years of community planning, manifested in the body of adopted planning documents that comprise the Comprehensive Plan. It is essential that we set ourselves to the immediate task of review our development ordinances to this end so that all of our land use planning and implementation tools are consistent and mutually-supportive. After all…it's our future!

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
Chapter 1, Section 1.2 - Urban Areas (Strategic Growth Areas)			
Burton Station SGA			
1.2-1	Update the *Burton Station SGA Master Plan* through a public process to reflect changes to the foundational assumptions that guided the development of the Burton Station SGA plan, particularly the extensive changes affecting future land use throughout the western half of the SGA.	Department of Planning & Community Development	Up to 2 years Completed 11/20/2018
Pembroke SGA			
1.2-2	Prepare a Master Transportation Plan for the Pembroke SGA using a public process that involves the adjacent neighborhoods.	Department of Planning & Community Development	Up to 2 years
Chapter 1, Section 1.3 - Suburban Area			
1.3-1	Draft Infill Development Design Guidelines in the Comprehensive Plan's Reference Handbook.	Department of Planning & Community Development	Up to 2 years
1.3-2	Develop planning and zoning tools and incentives to encourage new investment in declining neighborhood commercial centers.	Department of Planning & Community Development, Department of Economic Development, City Attorney's Office	Up to 2 years
1.3-3	Develop planning and zoning or other tools to assist distressed property owner associations with the preservation and maintenance of neighborhood parks and open spaces.	Department of Planning & Community Development, Department of Housing & Neighborhood Preservation, Office of Volunteer Services	2-6 years
1.3-4	Revise the Suburban Area section of the Comprehensive Plan, as appropriate, when sea level rise and recurrent flooding policies are adopted by City Council.	Department of Planning & Community Development	2-6 years Completed 6/2/2020
1.3-5	To ensure that the function of Princess Anne Road is not reduced due to numerous access points within Suburban Focus Area 2.1 (North Courthouse), the City should construct all or a portion of at least two lanes of London Bridge/Drakesmile Extended.	Department of Public Works	6+ years
1.3-6	Study the area between Holly Road and Pacific Avenue, north of 32nd Street to 42nd Street to determine need for infill development and redevelopment policies and design guidelines.	Department of Planning & Community Development, Planning Commission	Up to 2 years Completed 3/8/2017
1.3-7	Using a public process involving area stakeholders, study the Historic Seatack Community and Vicinity Area for potential designation as a Suburban Focus Area (SFA) with associated land use recommendations.	Department of Planning & Community Development, Planning Commission	Up to 2 years Completed 12/14/2016
Chapter 1, Section 1.4 - Princess Anne Commons & Transition Area			
Princess Anne Commons			
1.4-1	Update the *Princess Anne Commons Design Guidelines*.	Department of Planning & Community Development, Princess Anne Commons Task Force	Up to 2 years
1.4-2	Conduct a relocation feasibility study of the existing public facility yards located between Rosemont Road and Princess Anne Road to assess possible alternative uses for this area.	Department of Public Works, Department of Planning & Community Development, Department of Economic Development, Princess Anne Commons Task Force	2-6 years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
1.4-3	Conduct an inventory of all natural resource features on City-owned property in the Princess Anne Commons to determine which ones should be retained during development for their inherent water quality benefits. These features can be combined with man-made stormwater facilities and trails and incorporated into a "green infrastructure" network that can serve as an amenity for economic development sites.	Department of Parks & Recreation, Princess Anne Commons Task Force	Up to 2 years
1.4-4	Update or replace the *ITA & Vicinity Master Plan* through a public planning process to reflect changes that have occurred since the plan was adopted in 2011. Pay particular attention to infrastructure planning and design to support planned land uses.	Department of Planning & Community Development, Princess Anne Commons Task Force, Transition Area - ITA Citizens Advisory Committee	Up to 2 years Completed 12/12/2017
Transition Area			
1.4-5	Explore the feasibility of amending the Agricultural Reserve Program ordinance to include properties located in the Transition Area.	City Attorney's Office, Department of Agriculture	Up to 2 years
Chapter 1, Section 1.5 - Rural Area			
1.5-1	Review Section 402(b) of the Zoning Ordinance (Agricultural Districts) for possible amendment to address Code of VA Section 15.2-2157(c) and because it limits density by reference to how well different soil types can accommodate a traditional on-site septic system. The City should consider factors other than soil types to limit density, including, but not limited to: adverse impact on agriculture; the presence of floodplains; groundwater table elevation and drainage; and, drainage, roadway, and other infrastructure conditions.	Zoning Administrator, City Attorney's Office	Up to 2 years
1.5-2	Using GIS, analyze floodplains in the Rural Area to determine where future rural residential development should be avoided.	ComIT/Center for GIS, Environment and Sustainability Office, Department of Planning & Community Development.	Up to 2 years
1.5-3	Use GIS Analysis to determine how many platted lots of 5 acres or less along rural roadways that were not considered buildable due to soil constraints are potentially buildable under state AOSS regulations. Assess the extent to which rural roadways may be impacted.	ComIT/Center for GIS, Department of Planning & Community Development, Department of Health, Department of Public Works	Up to 2 years
1.5-4	Formally delineate the Pungo Rural Village boundary using stakeholder input and community consensus-building.	Department of Planning & Community Development	2-6 years
1.5-5	Using stakeholder input and community consensus-building, prepare a Master Plan for the Pungo Rural Village to determine the type and form of future desired growth. An important aspect of this planning process should be to anticipate when that growth might reasonably be expected to occur.	Department of Planning & Community Development	2-6 years
1.5-6	Conduct a study in Pungo Rural Village to determine if the existing on-site septic systems should be used if Rural Area development policies remain at the current density limit, or if such systems cannot be repaired or rehabilitated using AOSS technology if they are currently found to be failing. If it is found that existing onsite systems are failing and cannot be repaired, or if development with increased density is anticipated (or desired) to such an extent that onsite technology will not work, a study should be conducted to determine the need for, technology options, and feasibility for providing public sanitary sewer treatment systems for the Pungo Rural Village. The study should also investigate and evaluate the feasibility and cost of various alternatives.	Department of Public Utilities, Department of Public Health, Department of Planning & Community Development	2-6 years
1.5-7	Enhance the Pungo Village Design Guidelines in the Comprehensive Plan's Reference Handbook with illustrations.	Department of Planning & Community Development	Up to 2 years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
Chapter 1, Section 1.6 - Military Installations & Support			
1.6-1	Support the mission of the military installations in Virginia Beach. Continue to route to the Community Planning Liaison Officers (CPLOs) all discretionary and by-right development applications within "areas of interest" Work closely with the Community Planning Liaison Officers (CPLOs) in the review of development applications for "areas of interest" to avoid potentially incompatible uses.	City Manager's Office, City Attorney's Office, Department of Planning & Community Development	On-going
1.6-2	Continue to route applications for all discretionary and by-right development within "areas of interests" and AICUZ to the Community Planning Liaison Officers (CPLOs) to avoid potentially incompatible uses.	Department of Planning & Community Development	On-going
Chapter 2, Section 2.1 - Master Transportation Plan			
Roadways			
2.1-1	Adopt updated general typical sections and plan views to be consistent with those currently in the Public Works Design Standards.	Strategic Growth Areas Office/Transportation Division, Department of Public Works	Up to 2 years
2.1-2	Implement the improvements shown on the City's Primary Roadway Network Map, the Regional 2040 Long Range Transportation Plan, and the *Bikeways and Trails Plan* to the extent funding is available in the City's *Capital Improvement Plan (CIP)*, the State's *Six Year Improvement Program (SYIP).*	Department of Public Works, Department of Parks & Recreation	6+ years
Transit			
2.1-3	City Council has adopted a Locally Preferred Alternative to extend The Tide from the Newtown Road station in Norfolk to terminate at a new station in Town Center near Constitution Avenue. Plan for the future extension of this high capacity transit system as follows:	City Council, Department of Public Works, Strategic Growth Areas Office, Department of Planning & Community Development	2-6 years
	1. East to the Oceanfront		6+ years
	2. North to Joint Expeditionary Base Little Creek - Ft. Story and south and west to Norfolk International Airport area		6+ years
	3. South to Princess Anne Commons and the Municipal Center		6+ years
	4. West to Chesapeake		6+ years
2.1-4	Evaluate appropriate technology for these high capacity corridors including light rail, maglev, bus rapid transit (BRT) and others that depend on a rail or similar fixed guideway that separates the transit from normal vehicular use.	Strategic Growth Areas Office/Transportation Division	6+ years
2.1-5	Light Rail System Planning - Construct the eastern terminus of the light rail station proposed at Constitution Avenue so that it can easily be expanded to serve as a major passenger hub, with enhanced amenities and platforms to serve future east, north, and south high capacity transit corridors.	Department of Public Works, Strategic Growth Areas Office	2-6 years
2.1-6	Establish an east-west multi-modal corridor - Develop a shared use path generally within the old Norfolk Southern railroad alignment from Newtown Road to Town Center. This proximity will allow for greater connectivity to light rail stations and greater multi-modal choice.	Strategic Growth Areas Office, Department of Parks & Recreation Department of Public Works	2-6 years
2.1-7	Light Rail Station Connectivity - Enhance pedestrian/bicycle connections to all high capacity transit stations and bus route stops to provide safe access and enhanced modal choice.	Strategic Growth Areas Office, Department of Parks & Recreation, Department of Public Works	2-6 years
2.1-8	Coordinate annual evaluation of new bus routing, frequency of service, and duration of service. In the near future (within 5 years), implement the proposed feeder bus network needed to serve the light rail extension from Norfolk to Virginia Beach Town Center. Enhance local bus service to become a viable option for people who could choose to drive, otherwise referred to as "choice riders." The provision of frequent, reliable, comfortable service can reduce single occupancy automobile travel and, thus, address traffic congestion and reduce the need for additional construction of highway lane miles.	Strategic Growth Areas office	2-6 years
Active Transportation			

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
2.1-9	Develop a study to identify additional and improved crossings of I-264 and I64 to serve both the existing demand and the likely increases in demand for active transportation modes as The Tide extension begins service. The most urgent specific connection is in the Town Center area, to relieve the hazardous crossings along Independence Boulevard.	Department of Parks & Recreation, Strategic Growth Areas Office, Department of Public Works	2-6 years
2.1-10	Continue to use the City's *Bikeways and Trails Plan* as the guiding active transportation policy document and initiate a plan update.	Department of Parks and Recreation	2-6 years
Transportation Demand Management (TDM)			
2.1-11	Develop a comprehensive TDM Plan, including telecommuting, flexible work schedules, and off peak business hours, especially in the City's main employment centers. Utilize TRAFFIX staff to survey major employers in these centers to formulate the TDM plans with necessary incentives.	Strategic Growth Areas Office/Transportation Division	2-6 years
2.1-12	Recognize and reduce the impacts of parking supply on travel demand by developing new fee-based parking strategies and regulations in appropriate areas with good transit service.	Strategic Growth Areas Office/Transportation Division, Resort Area Office	2-6 years
Intelligent Transportation Systems (ITS)			
2.1-13	Update plans for traffic signalization every three years.	Department of Public Works	2-6 years
2.1-14	Monitor trends regarding emerging technologies in the areas of Information and Communication (ICT), Global Positioning Systems (GPS), and ITS. Stay current with trends in ITS to develop it as an on-going resource for transportation network infrastructure.	Strategic Growth Areas Office/Transportation Division	2-6 years
2.1-15	Create parking strategies that merge technology and infrastructure. Adopt innovations to deliver live parking data to citizens including heat maps that can show drivers available parking on a block-by-block basis. Consider dynamic meter pricing raising the price for on-street parking during peak time to make some spaces available. When spaces are available, drivers spend less time searching for parking.	Strategic Growth Areas Office/Transportation Division	2-6 years
2.1-16	Consider developing dynamic pricing mechanisms for roads, parking spaces, and shared-use assets to balance supply and demand.	Strategic Growth Areas Office/Transportation Division	2-6 years
2.1-17	Continue to develop and implement adaptive signal control in coordination with the Federal Highway Administration (FHWA).	Department of Public Works	2-6 years
2.1-18	To promote the use of local transit, consider equipping parking garages with more internal directional signage to show the location of transit stops.	Strategic Growth Areas Office/Transportation Division	2-6 years
Chapter 2, Section 2.2 - Environmental Stewardship Framework			
Water Resources Protection and Management - Surface Water			
2.2-1	Implement regulatory requirements relating to stormwater management, including but not limited to meeting NPDES MS4 and Chesapeake Bay TMDL mandates.	Department of Planning & Community Development, Department of Public Works, Department of Public Utilities, Department of Parks & Recreation	2-6 years
2.2-2	Promote partnerships with the non-governmental organizations to achieve the City's water quality improvement goals.	Green Ribbon Committee, Clean Waters Task Force	On-going
2.2-3	Implement requirements of the 2014 Chesapeake Bay Watershed Agreement.	Department of Planning & Community Development, Department of Public Works, Department of Parks & Recreation Green Ribbon Committee, and Clean Waters Task Force	2-6 years
2.2-4	Develop design criteria that help achieve water quality objectives in conjunction with other SGA objectives, such as preserving open space and planning for sea level rise and recurrent flooding.	Departments of Planning & Community Development, Department of Public Works, Department of Parks & Recreation, Strategic Growth Areas Office	6+ years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
2.2-5	Complete efforts that are currently underway to develop a Stormwater Master Planning Analysis and Inventory.	Department of Public Works	2-6 years
Water Resources Protection and Management - Ground Water			
2.2-6	Develop a targeted educational program that increases public awareness about the importance of protection and conservation of non-potable groundwater resources and their use.	Clean Waters Task Force	2-6 years
2.2.7	Establish protocols to conserve and protect groundwater on city properties: 1. Develop an integrated pest management (IPM) and nutrient management plan. 2. Complete an underground storage tank (UST) remediation on all City sites.	Department of Planning & Community Development, Department of Parks & Recreation	6+ years
Parks and Conserved Lands			
2.2-8	Acquire open space in strategic locations, including SGA's, that can provide multiple benefits in terms of flood control, water quality, public access to waterways, preserving or creating tree canopy, and preserving unique ecological and cultural heritage sites.	Department of Parks & Recreation, Department of Planning & Community Development, Strategic Growth Area Office	6+ years
2.2-9	Commit resources to maintain the high quality of the existing park system and to expand the trail system.	Department of Parks & Recreation	6+ years
2.2-10	Implement the recommendations in the *Virginia Beach Bikeways and Trails Plan.*	Department of Parks & Recreation, Department of Public Works	2-6 years
2.2-11	Implement the recommendations in the *Virginia Beach Outdoors Plan.*	Department of Parks & Recreation	6+ years
Green Infrastructure			
2.2-12	City properties within the Princess Anne Commons and Interfacility Traffic Area should be studied to identify conservation lands and green infrastructure opportunities that can complement the plans for future economic development projects.	Princess Anne Commons Task Force, Department of Parks & Recreation, Department of Economic Development, Department of Public Works	Up to 2 years
Living Resources and Ecosystem Protection Management - Urban Forestry			
2.2-13	Implement the recommendations in the *Urban Forest Management Plan*.	Department of Parks & Recreation	2-6 years
2.2-14	Improve the viability and resilience of the City's urban forest by initiating the three-trophic layer (canopy trees, understory trees, shrub and groundcover) approach.	Department of Parks & Recreation, Department of Planning & Community Development	2-6 years
2.2-15	Improve inspections and enforcement capabilities to better achieve the objectives of local landscaping and tree protection ordinance requirements.	Department of Planning & Community Development, Department of Parks & Recreation	2-6 years
2.2-16	Enhance policies that guide development requirements for landscape practices on proposed projects.	Department of Planning & Community Development, Department of Parks & Recreation	Up to 2 years
Living Resources and Ecosystem Protection Management - Living Shorelines			
2.2-17	Train regulatory boards (Wetlands and CBPA) on decision making tools developed by the Center for Coastal Resources Management at VIMS.	Department of Planning & Community Development, City Attorney's Office	Up to 2 years
2.2-18	Follow the development of the state-wide General Permit being developed by the Virginia Marine Resources Commission (VMRC). Ensure that local policies are consistent with the provisions of the permit.	Department of Planning & Community Development	Up to 2 years
2.2-19	Educate citizens and stakeholders on new shoreline management strategies including Living Shorelines.	Clean Waters Task Force, Green Ribbon Committee	2-6 years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
2.2-20	Evaluate and develop a locality-wide regulatory structure that encourages a more integrated approach to shoreline management.	City Attorney's Office, Department of Public Works, Department of Parks & Recreation, Department of Planning	2-6 years
2.2-21	Evaluate and recommend cost share opportunities for construction of living shorelines.	Clean Waters Task Force, Green Ribbon Committee	2-6 years
Living Resources and Ecosystem Protection Management - Unique Plants and Animal Habitats			
2.2-22	Develop and implement policies and programs that protect, restore and enhance critical habitats along the City's waterways.	Department of Planning & Community Development	2-6 years
2.2-23	Restore and attain sustainable inventories of native edible oysters in the Lynnhaven River.	Department of Planning & Community Development, Department of Public Health, Clean Waters Task Force, and Green Ribbon Committee	2-6 years
2.2-24	Restore oyster reefs in the Lynnhaven and Owls Creek estuaries by developing a hatchery plan and constructing sanctuary reefs.	Department of Planning & Community Development, Clean Waters Task Force, and Green Ribbon Committee	2-6 years
2.2-25	Work with Virginia Institute of Marine Science (VIMS) and other partners to restore Submerged Aquatic Vegetation (SAV) through planting and habitat enforcement efforts.	Department of Planning & Community Development, Department of Public Works, Clean Waters Task Force, and Green Ribbon Committee	6+ years
2.2-26	Undertake one wetlands restoration project each year in the Elizabeth River Watershed, the Lynnhaven River Watershed, Back Bay Watershed, North Landing River Watershed, and Rudee Inlet/Owls Creek Watershed.	Department of Planning & Community Development and community organizations	2-6 years
2.2-27	Develop a City program to effectively manage invasive plants and animals.	Department of Planning & Community Development, Department of Parks & Recreation	6+ years
Sea Level Rise, Recurrent Flooding, and Hazard Mitigation			
2.2-28	Develop a program to educate the public on the beneficial functions and values of floodplains.	Department of Planning & Community Development	Up to 2 years
2.2-29	Complete the City *Comprehensive Response Plan to Sea Level Rise and Recurrent Flooding* for all areas of the City and implement the recommendations therein, subject to funding.	Department of Planning & Community Development, Department of Public Works	2-6 years
2.2-30	Preserve and enhance beaches and dunes along the City's Atlantic Ocean and Chesapeake Bay shorelines.	Department of Public Works	6+ years
2.2-31	Implement the recommendations of the *Regional Hazard Mitigation Plan*.	Fire Department/Emergency Management, Department of Planning & Community Development, Department of Public Works	2-6 years
Land Development Management/Stormwater Management			
2.2-32	Complete and adopt the *Integrated Site Design Guide* as a component of Planning's *Design Specifications and Standards.*	Department of Planning & Community Development	2-6 years
2.2-33	Enhance stormwater management by exploring alternatives to conventional stormwater management facilities (SWMFs), such as Low Impact Development (LID) approaches that are applicable to the Coastal Plain.	Department of Planning & Community Development, Green Ribbon Committee, Clean Waters Task Force	2-6 years
2.2-34	Work with regional partners to implement the *Green Sea Blueway and Greenway Management Plan.*	Department of Planning & Community Development, Department of Parks & Recreation, Convention & Visitors Bureau, City Attorney's Office	6+ years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
2.2-35	Develop online tools to assist the public with identification of sensitive environmental areas in the development review process.	Department of Planning & Community Development, Communication/IT - Center for GIS	Up to 2 years
Energy Resources Management			
2.2-36	Prepare action and public communications plans to support the Commonwealth's goal to reduce electric energy consumption by 10% below 2006 levels by 2020.	City Manager's Office	2-6 years
2.2-37	Implement the City's commitment to the US Mayor's "Climate Protection Agreement."	City Manager's Office	2-6 years
Alternative Energy Development			
2.2-38	Encourage research and development of alternative energy sources and promote their use.	Mayor's Energy Advisory Committee	2-6 years
2.2-39	Work with the Virginia Coastal Energy Research Consortium (VCERC) on offshore wind development.	City Manager's Office	2-6 years
Noise Pollution			
2.2-40	Explore alternative means of noise attenuation along roadways and at intersections where noise attenuation is not mandated through the use of wider shoulders and increased vegetation.	Department of Public Works, Department of Planning & Community Development, Department of Parks & Recreation	6+ years
Light Pollution			
2.2-41	Develop and adopt a Dark Skies Initiative Administrative Directive.	Department of Planning & Community Development, Department of Museums	2-6 years
Solid and Hazardous Waste Management			
2.2-42	Participate with the region's localities to develop a post-2018 SPSA (Southeastern Public Service Authority) Agreement for regional waste management.	Department of Public Works, City Manager's Office	Up to 2 years
2.2-43	Expand participation and types of materials accepted in the City's recycling program.	Department of Public Works	2-6 years
2.2-44	Promote increased recycling in the tourism industry through the development of incentives.	Resort Area Advisory Committee, Department of Public Works	2-6 years
Chapter 2, Section 2.3 - Housing and Neighborhoods			
2.3-1	Develop an integrated housing strategy addressing affordability and neighborhood preservation, based on best available data and national best practices	Department of Housing and Neighborhood Preservation	2 years
2.3-2	Perform a housing study to help define additional strategies for achieving neighborhood preservation.	Department of Housing and Neighborhood Preservation	Up to 1 year
Chapter 2, Section 2.4 - Economic Vitality			
2.4-1	Continue to promote Virginia Beach as a year-round destination.	Convention & Visitors Bureau	On-going
2.4-2	Develop a Transit-Oriented Development land use and zoning strategy for the SGAs.	SGA Office	2-6 years
2.4-3	Reshape non-conforming business districts (e.g., Pembroke SGA-Central Village District, etc.) into well-planned and designed commercial nodes that are compatible with adopted plans and design guidelines.	Department of Economic Development, Strategic Growth Areas Office, Department of Planning & Community Development	6+ years
2.4-4	Update the Master Plan and associated design guidelines for Corporate Landing Commerce Park.	Department of Economic Development, Department of Planning & Community Development	Up to 2 years

AGENDA FOR FUTURE ACTION - RECOMMENDATIONS SUMMARY

ACTION ID	RECOMMENDED ACTION	LEAD RESPONSIBLE PARTY(S)	ESTIMATED TIME FRAME FOR COMPLETION
2.4-5	Inventory the conditions of neighborhood commercial centers and strip shopping centers. Consider incentives for façade improvements (e.g., cost share grants, etc.). Consider opportunities for repurposing over-parked commercial parking lots for possible permanent or temporary/seasonal infill uses, while adhering to recently updated commercial use parking standards in the Zoning Ordinance.	Department of Economic Development, City Attorney's Office	2-6 years
2.4-6	Inventory industrial zoning districts to determine if there is a sufficient supply of appropriate zoning for both light and heavy industrial uses, especially for the types of desired compatible land uses within SEGAs.	Department of Economic Development, Department of Planning & Community Development	Up to 2 years

ENDNOTES

[i] Michael Chandler. "The CIP in Virginia: An Overview and Explanation." Virginia Tech, Land Use Education Program Workshop: Funding the Future – the Role of the CIP. October 29-30, 2015. Richmond, VA.
[ii] *Ibid.*
[iii] *Ibid.*